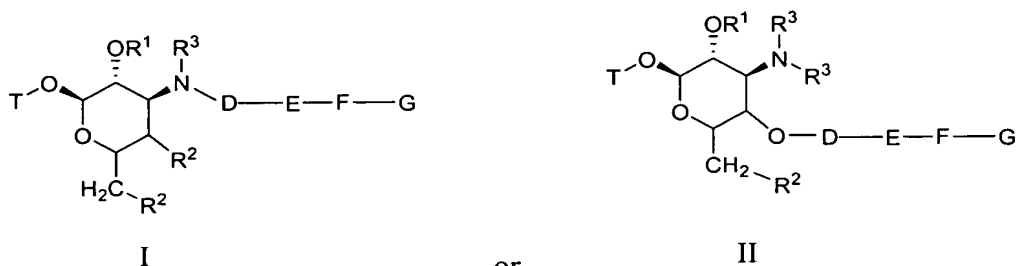


***Amendments to the Claims:***

The Claim Listing below will replace all prior version of the claims in the application:

### ***Claim Listing***

1. (Original) A compound having the formula:



or a pharmaceutically acceptable salt, ester, *N*-oxide, or prodrug thereof,

wherein

T is a 14-, 15-, or 16-membered macrolide connected via a macrocyclic ring carbon atom;

R<sup>1</sup> and R<sup>3</sup> independently are selected from the group consisting of: (a) H, (b) a

C<sub>1-6</sub> alkyl group, (c) a C<sub>2-6</sub> alkenyl group, (d) a C<sub>2-6</sub> alkynyl group, (e) -C(O)R<sup>5</sup>,

(f)  $-\text{C}(\text{O})\text{OR}^5$ , (g)  $-\text{C}(\text{O})-\text{NR}^4\text{R}^4\text{R}^4\text{R}^4$ , (h)  $-\text{C}(\text{S})\text{R}^5$ , (i)  $-\text{C}(\text{S})\text{OR}^5$ , (j)  $-\text{C}(\text{O})\text{SR}^5$ , or (k)  $-\text{C}(\text{S})-$

$$\text{NR}^4\text{R}^4\text{R}^4\text{R}^4;$$

$R^2$  is hydrogen or  $-OR^{12}$ ;

D is selected from the group consisting of:

(a) a single bond, (b) a C<sub>1-6</sub> alkyl group, (c) a C<sub>2-6</sub> alkenyl group; (d) a C<sub>2-6</sub> alkynyl group; (e) -C(O)-X-, (f) -C(O)O-X-, (g) -C(O)NR<sup>4</sup>R<sup>4</sup>-X-,

(h)  $-\text{C}(=\text{NR}^4)-\text{X}-$ , (i)  $-\text{C}(=\text{NR}^4)\text{O}-\text{X}-$ , (j)  $-\text{C}(=\text{NR}^4)\text{N}-\text{X}-$ ,

(k)  $-\text{SO}_2-\text{X}-$ , (l)  $-\text{C}(\text{NR}^4)\text{NR}^4-\text{X}-$ , (m)  $-\text{C}(\text{S})-\text{X}-$ ,

(n)  $-\text{C}(\text{S})\text{NR}^4-\text{X}-$ , (o)  $-\text{C}(\text{NR}^4)\text{S}-\text{X}-$ , or (p)  $-\text{C}(\text{O})\text{S}-\text{X}-$ , wherein

i) 0-2 carbon atoms in any of (b)–(d) of D immediately above optionally is replaced by a moiety selected from the group consisting of O, S(O)<sub>n</sub>, and NR<sup>4</sup>,

- ii) each of the groups (b)–(d) immediately above optionally is substituted with one or more R<sup>5</sup> groups,
  - iii) alternatively when R<sup>5</sup> is present as an optional substituent on (b)–(d), R<sup>3</sup> and R<sup>5</sup> can be taken together with the atoms to which they are attached to form a 3-7 membered ring, and
  - iv) X is selected from the group consisting of (aa) a C<sub>1-6</sub> alkyl group, (bb) a C<sub>2-6</sub> alkenyl group, or (cc) a C<sub>2-6</sub> alkynyl group, wherein each of groups (aa)–(cc) optionally is substituted with one or more R<sup>5</sup> groups;
- F is selected from the group consisting of:
- (a) a single bond, (b) a C<sub>1-6</sub> alkyl group, (c) a C<sub>2-6</sub> alkenyl group, (d) a C<sub>2-6</sub> alkynyl group, wherein
    - i) 0-2 carbon atoms in any of (b)–(d) of F immediately above optionally is replaced by a moiety selected from the group consisting of O, S(O)<sub>p</sub>, and NR<sup>4</sup>,
    - ii) any of (b)–(d) of F immediately above optionally is substituted with one or more R<sup>5</sup> groups, and
    - iii) any of (b)–(d) of F immediately above optionally is substituted with C<sub>1-6</sub> alkyl-R<sup>5</sup> groups;
- E is selected from the group consisting of:
- (a) a 3-10 membered saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur,
  - (b) a 3-10 membered saturated, unsaturated, or aromatic carbocycle,
  - (c) a –W–[3-10 membered saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur],
  - (d) a –W–[ 3-10 membered saturated, unsaturated, or aromatic carbocycle],
  - (e) –C(O)–, (f) –C(O)O–, (g) –C(O)NR<sup>4</sup>–, (h) –C(=NR<sup>4</sup>)–,
  - (i) –C(=NR<sup>4</sup>)O–, (j) –C(=NR<sup>4</sup>)NR<sup>4</sup>–, (k) –OC(O)–, (l) –OC(O)O–,
  - (m) –OC(O)NR<sup>4</sup>–, (n) –NR<sup>4</sup>C(O)–, (o) –NR<sup>4</sup>C(O)O–,

(p)  $-NR^4C(O)NR^4-$ , (q)  $-NR^4C(=NR^4)NR^4-$ , (r)  $-S(O)_p-$ ,  
 (s)  $-NR^4S(O)_2-$ , (t)  $-S(O)_2NR^4-$ , (u)  $-C(N-OR^4)-$ , (v)  $-CH_2-$ ,  
 (w)  $-C(N-NR^4R^4)-$ , (x)  $-C(S)NR^4-$ , (y)  $-NR^4C(S)-$ , (z)  $-C(S)O-$ , or  
 (aa)  $-OC(S)-$ , wherein

- i) any of (a)-(d) immediately above optionally is substituted with one or more  $R^5$  groups; and
- ii) W is selected from the group consisting of:  
 (aa)  $-OCO-$ , (bb)  $-OC(O)O-$ , (cc)  $-OC(O)NR^4-$ ,  
 (dd)  $-NR^4C(O)O-$ , (ee)  $-OCNOR^4-$ ,  
 (ff)  $-NR^4-C(O)O-$ , (gg)  $-C(S)(NR^4)-$ , (hh)  $-NR^4-$ ,  
 (ii)  $-OC(S)O-$ , (jj)  $-OC(S)NR^4-$ , (kk)  $-NR^4C(S)O-$ , (ll)  $-OC(S)NOR^4-$ , (mm)  $-C(S)O-$ , (nn)  $-OC(S)-$ , (oo)  $-C(O)-$ , (pp)  $-C(O)O-$ , (qq)  $-C(O)NR^4-$ , (rr)  $-C(=NR^4)-$ ,  
 (ss)  $-C(=NR^4)O-$ , (tt)  $-C(=NR^4)NR^4-$ , (uu)  $-OC(O)-$ , (vv)  $-OC(O)O-$ , (ww)  $-OC(O)NR^4-$ , (xx)  $-NR^4C(O)-$ , (yy)  $-NR^4C(O)O-$ ,  
 (zz)  $-NR^4C(O)NR^4-$ , (aaa)  $-NR^4C(=NR^4)NR^4-$ , (bbb)  $-S(O)_p-$ , (ccc)  $-NR^4S(O)_2-$ , (ddd)  $-S(O)_2NR^4-$ , (eee)  $-C(N-OR^4)-$ , (fff)  $-C(N-NR^4R^4)-$ , (ggg)  $-C(S)NR^4-$ , or (hhh)  $-NR^4C(S)-$ ;

G is selected from the group consisting of: (a)  $B'$  and (b)  $B'-Z-B''$ , wherein

- i) each  $B'$  and  $B''$  is independently selected from the group consisting of  
 (aa) an aryl group, (bb) a heteroaryl group, (cc) a biaryl group, (dd) a fused bicyclic or tricyclic saturated, unsaturated or aromatic ring system optionally containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, (ee) a 3-10 membered saturated or unsaturated heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, (ff) a 3-10 membered saturated, or unsaturated carbocycle, wherein each (aa)-(ff) optionally is substituted with one or more  $R^{11}$  groups; and
- ii) Z is selected from the group consisting of

(aa) a single bond, (bb) a C<sub>1-2</sub> alkyl group, (cc) a C<sub>2</sub> alkenyl group,  
(dd) a C<sub>2</sub> alkynyl group, (ee) -C(O)-, (ff) -C(O)O-, (gg) -C(O)NR<sup>4</sup>-,  
(hh) -C(=NR<sup>4</sup>)-, (ii) -C(=NR<sup>4</sup>)O-, (jj) -C(=NR<sup>4</sup>)NR<sup>4</sup>-, (kk) -S(O)<sub>p</sub>-,  
(ll) -OC(O)-, (mm) -C(S)-, (nn) -C(S)NR<sup>4</sup>-, (oo) -C(NR<sup>4</sup>)S-, (pp) -  
C(O)S-, (qq) -O-, (rr) -NR<sup>4</sup>-, (ss) -NR<sup>4</sup>C(O)-, (tt) -OC(NR<sup>4</sup>)-, (uu)  
-NC(NR<sup>4</sup>)-, (vv) -C(S)O-, (ww) -SC(O)-, or (xx) -OC(S)-;

R<sup>4</sup>, at each occurrence, independently is selected from the group consisting of:

(a) H, (b) a C<sub>1-6</sub> alkyl group, (c) a C<sub>2-6</sub> alkenyl group, (d) a C<sub>2-6</sub> alkynyl group, (e) a  
C<sub>6-10</sub> saturated, unsaturated, or aromatic carbocycle, (f) a 3-12 membered saturated,  
unsaturated, or aromatic heterocycle containing one or more heteroatoms selected  
from the group consisting of nitrogen, oxygen, and sulfur, (g) -C(O)-C<sub>1-6</sub> alkyl, (h) -  
C(O)-C<sub>2-6</sub> alkenyl, (i) -C(O)-C<sub>2-6</sub> alkynyl, (j) -C(O)-C<sub>6-10</sub> saturated, unsaturated, or  
aromatic carbocycle, (k) -C(O)-3-12 membered saturated, unsaturated, or aromatic  
heterocycle containing one or more heteroatoms selected from the group consisting  
of nitrogen, oxygen, and sulfur, (l) -C(O)O-C<sub>1-6</sub> alkyl, (m) -C(O)O-C<sub>2-6</sub> alkenyl,  
(n) -C(O)O-C<sub>2-6</sub> alkynyl,  
(o) -C(O)O-C<sub>6-10</sub> saturated, unsaturated, or aromatic carbocycle, (p) -C(O)O-3-12  
membered saturated, unsaturated, or aromatic heterocycle containing one or more  
heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, and  
q) -C(O)NR<sup>6</sup>R<sup>6</sup>,

wherein any of (b)-(p) optionally is substituted with one or more R<sup>5</sup> groups,  
alternatively, NR<sup>4</sup>R<sup>4</sup> forms a 3-7 membered saturated, unsaturated or aromatic ring including  
the nitrogen atom to which the R<sup>4</sup> groups are bonded, wherein said ring is optionally substituted at a  
position other than the nitrogen atom to which the R<sup>4</sup> groups are bonded, with one or more moieties  
selected from the group consisting of O, S(O)<sub>p</sub>, N, and NR<sup>8</sup>;

R<sup>5</sup> is selected from the group consisting of:

(a) R<sup>7</sup>, (b) a C<sub>1-8</sub> alkyl group, (c) a C<sub>2-8</sub> alkenyl group, (d) a C<sub>2-8</sub> alkynyl group, (e) a  
C<sub>3-12</sub> saturated, unsaturated, or aromatic carbocycle, and (f) a 3-12 membered  
saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms  
selected from the group consisting of nitrogen, oxygen, and sulfur, or two R<sup>5</sup> groups,

when present on the same carbon atom can be taken together with the carbon atom to which they are attached to form a spiro 3-6 membered carbocyclic ring or heterocyclic ring containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur;

wherein any of (b)–(f) immediately above optionally is substituted with one or more  $R^7$  groups;

$R^6$ , at each occurrence, independently is selected from the group consisting of:

(a) H, (b) a  $C_{1-6}$  alkyl group, (c) a  $C_{2-6}$  alkenyl group, (d) a  $C_{2-6}$  alkynyl group, (e) a  $C_{3-10}$  saturated, unsaturated, or aromatic carbocycle, and (f) a 3-10 membered saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur,

wherein any of (b)–(f) optionally is substituted with one or more moieties selected from the group consisting of:

(aa) a carbonyl group, (bb) a formyl group, (cc) F, (dd) Cl, (ee) Br, (ff) I, (gg) CN, (hh)  $NO_2$ , (ii)  $-OR^8$ , (jj)  $-S(O)_pR^8$ , (kk)  $-C(O)R^8$ , (ll)  $-C(O)OR^8$ , (mm)  $-OC(O)R^8$ , (nn)  $-C(O)NR^8R^8$ , (oo)  $-OC(O)NR^8R^8$ , (pp)  $-C(=NR^8)R^8$ , (qq)  $-C(R^8)(R^8)OR^8$ , (rr)  $-C(R^8)_2OC(O)R^8$ , (ss)  $-C(R^8)(OR^8)(CH_2)_rNR^8R^8$ , (tt)  $-NR^8R^8$ , (uu)  $-NR^8OR^8$ , (vv)  $-NR^8C(O)R^8$ , (ww)  $-NR^8C(O)OR^8$ , (xx)  $-NR^8C(O)NR^8R^8$ , (yy)  $-NR^8S(O)_rR^8$ , (zz)  $-C(OR^8)(OR^8)R^8$ , (ab)  $-C(R^8)_2NR^8R^8$ , (ac)  $=NR^8$ , (ad)  $-C(S)NR^8R^8$ , (ae)  $-NR^8C(S)R^8$ , (af)  $-OC(S)NR^8R^8$ , (ag)  $-NR^8C(S)OR^8$ , (ah)  $-NR^8C(S)NR^8R^8$ , (ai)  $-SC(O)R^8$ , (aj) a  $C_{1-8}$  alkyl group, (ak) a  $C_{2-8}$  alkenyl group, (al) a  $C_{2-8}$  alkynyl group, (am) a  $C_{1-8}$  alkoxy group, (an) a  $C_{1-8}$  alkylthio group, (ao) a  $C_{1-8}$  acyl group, (ap)  $-CF_3$ ,

(aq)  $-\text{SCF}_3$ , (ar) a  $\text{C}_{3-10}$  saturated, unsaturated, or aromatic carbocycle, and (as) a 3-10 membered saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur,

alternatively,  $\text{NR}^6\text{R}^6$  forms a 3-10 membered saturated, unsaturated or aromatic ring including the nitrogen atom to which the  $\text{R}^6$  groups are attached wherein said ring is optionally substituted at a position other than the nitrogen atom to which the  $\text{R}^6$  groups are bonded, with one or more moieties selected from the group consisting of O,  $\text{S}(\text{O})_p$ , N, and  $\text{NR}^8$ ;

alternatively,  $\text{CR}^6\text{R}^6$  forms a carbonyl group;

$\text{R}^7$ , at each occurrence, is selected from the group consisting of:

(a) H, (b)  $=\text{O}$ , (c) F, (d) Cl, (e) Br, (f) I, (g)  $-\text{CF}_3$ , (h)  $-\text{CN}$ , (i)  $-\text{N}_3$  (j)  $-\text{NO}_2$ , (k)  $-\text{NR}^6(\text{CR}^6\text{R}^6)_t\text{R}^9$ , (l)  $-\text{OR}^9$ , (m)  $-\text{S}(\text{O})_p\text{C}(\text{R}^6\text{R}^6)_t\text{R}^9$ , (n)  $-\text{C}(\text{O})(\text{CR}^6\text{R}^6)_t\text{R}^9$ , (o)  $-\text{OC}(\text{O})(\text{CR}^6\text{R}^6)_t\text{R}^9$ , (p)  $-\text{SC}(\text{O})(\text{CR}^6\text{R}^6)_t\text{R}^9$ , (q)  $-\text{C}(\text{O})\text{O}(\text{CR}^6\text{R}^6)_t\text{R}^9$ , (r)  $-\text{NR}^6\text{C}(\text{O})(\text{CR}^6\text{R}^6)_t\text{R}^9$ , (s)  $-\text{C}(\text{O})\text{NR}^6(\text{CR}^6\text{R}^6)_t\text{R}^9$ , (t)  $-\text{C}(=\text{NR}^6)(\text{CR}^6\text{R}^6)_t\text{R}^9$ , (u)  $-\text{C}(=\text{NNR}^6\text{R}^6)(\text{CR}^6\text{R}^6)_t\text{R}^9$ , (v)  $-\text{C}(=\text{NNR}^6\text{C}(\text{O})\text{R}^6)(\text{CR}^6\text{R}^6)_t\text{R}^9$ , (w)  $-\text{C}(=\text{NOR}^9)(\text{CR}^6\text{R}^6)_t\text{R}^9$ , (x)  $-\text{NR}^6\text{C}(\text{O})\text{O}(\text{CR}^6\text{R}^6)_t\text{R}^9$ , (y)  $-\text{OC}(\text{O})\text{NR}^6(\text{CR}^6\text{R}^6)_t\text{R}^9$ , (z)  $-\text{NR}^6\text{C}(\text{O})\text{NR}^6(\text{CR}^6\text{R}^6)_t\text{R}^9$ , (aa)  $-\text{NR}^6\text{S}(\text{O})_p(\text{CR}^6\text{R}^6)_t\text{R}^9$ , (bb)  $-\text{S}(\text{O})_p\text{NR}^6(\text{CR}^6\text{R}^6)_t\text{R}^9$ , (cc)  $-\text{NR}^6\text{S}(\text{O})_p\text{NR}^6(\text{CR}^6\text{R}^6)_t\text{R}^9$ , (dd)  $-\text{NR}^6\text{R}^6$ , (ee)  $-\text{NR}^6(\text{CR}^6\text{R}^6)$ , (ff)  $-\text{OH}$ , (gg)  $-\text{NR}^6\text{R}^6$ , (hh)  $-\text{OCH}_3$ , (ii)  $-\text{S}(\text{O})_p\text{R}^6$ , (jj)  $-\text{NC}(\text{O})\text{R}^6$ , (kk) a  $\text{C}_{1-6}$  alkyl group, (ll) a  $\text{C}_{2-6}$  alkenyl group, (mm) a  $\text{C}_{2-6}$  alkynyl group, (nn)  $-\text{C}_{3-10}$  saturated, unsaturated, or aromatic carbocycle, and (oo) 3-10 membered saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur,

wherein any of (kk)–(oo) optionally is substituted with one or more  $\text{R}^9$  groups;

alternatively, two  $\text{R}^7$  groups may form  $-\text{O}(\text{CH}_2)_u\text{O}-$ ;

$\text{R}^8$  is selected from the group consisting of:

(a)  $R^5$ , (b) H, (c) a  $C_{1-6}$  alkyl group, (d) a  $C_{2-6}$  alkenyl group, (e) a  $C_{2-6}$  alkynyl group, (f) a  $C_{3-10}$  saturated, unsaturated, or aromatic carbocycle, (g) a 3-10 membered saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, (h)  $-C(O)-C_{1-6}$  alkyl, (i)  $-C(O)-C_{1-6}$  alkenyl, (j)  $-C(O)-C_{1-6}$  alkynyl, (k)  $-C(O)-C_{3-10}$  saturated, unsaturated, or aromatic carbocycle, and (l)  $-C(O)-3-10$  membered saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur,

wherein any of (c)–(k) optionally is substituted with one or more moieties selected from the group consisting of : (aa) H, (bb) F, (cc) Cl, (dd) Br, (ee) I, (ff) CN, (gg)  $NO_2$ , (hh) OH, (ii)  $NH_2$ , (jj)  $NH(C_{1-6} \text{ alkyl})$ , (kk)  $N(C_{1-6} \text{ alkyl})_2$ , (ll) a  $C_{1-6}$  alkoxy group, (mm) an aryl group, (nn) a substituted aryl group, (oo) a heteroaryl group, (pp) a substituted heteroaryl group, and qq) a  $C_{1-6}$  alkyl group optionally substituted with one or more moieties selected from the group consisting of an aryl group, a substituted aryl group, a heteroaryl group, a substituted heteroaryl group, F, Cl, Br, I, CN,  $NO_2$ ,  $CF_3$ ,  $SCF_3$ , and OH;

$R^9$ , at each occurrence, independently is selected from the group consisting of:

(a)  $R^{10}$ , (b) a  $C_{1-6}$  alkyl group, (c) a  $C_{2-6}$  alkenyl group, (d) a  $C_{2-6}$  alkynyl group, (e) a  $C_{3-10}$  saturated, unsaturated, or aromatic carbocycle, and (f) a 3-10 membered saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur,

wherein any of (b)–(f) optionally is substituted with one or more  $R^{10}$  groups;

$R^{10}$ , at each occurrence, independently is selected from the group consisting of:

(a) H, (b)  $=O$ , (c) F, (d) Cl, (e) Br, (f) I, (g)  $-CF_3$ , (h)  $-CN$ , (i)  $-NO_2$ , (j)  $-NR^6R^6$ , (k)  $-OR^6$ , (l)  $-S(O)_pR^6$ , (m)  $-C(O)R^6$ , (n)  $-C(O)OR^6$ , (o)  $-OC(O)R^6$ , (p)  $NR^6C(O)R^6$ , (q)  $-C(O)NR^6R^6$ , (r)  $-C(=NR^6)R^6$ , (s)  $-NR^6C(O)NR^6R^6$ , (t)  $-NR^6S(O)_pR^6$ , (u)  $-S(O)_pNR^6R^6$ , (v)  $-NR^6S(O)_pNR^6R^6$ , (w) a  $C_{1-6}$  alkyl group, (x) a  $C_{2-6}$  alkenyl group, (y) a  $C_{2-6}$  alkynyl group, (z) a  $C_{3-10}$  saturated, unsaturated, or aromatic carbocycle, and (aa) a 3-10 membered saturated, unsaturated, or aromatic heterocycle containing

one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur,

wherein any of (w)–(aa) optionally is substituted with one or more moieties selected from the group consisting of  $R^6$ , F, Cl, Br, I, CN,  $NO_2$ ,  $-OR^6$ ,  $-NH_2$ ,  $-NH(C_{1-6} \text{ alkyl})$ ,  $-N(C_{1-6} \text{ alkyl})_2$ , a  $C_{1-6}$  alkoxy group, a  $C_{1-6}$  alkylthio group, and a  $C_{1-6}$  acyl group;

$R^{11}$  each occurrence, independently is selected from the group consisting of:

(a) a carbonyl group, (b) a formyl group, (c) F, (d) Cl, (e) Br, (f) I, (g) CN, (h)  $NO_2$ , (i)  $OR^8$ , (j)  $-S(O)_pR^8$ , (k)  $-C(O)R^8$ , (l)  $-C(O)OR^8$ , (m)  $-OC(O)R^8$ , (n)  $-C(O)NR^8R^8$ , (o)  $-OC(O)NR^8R^8$ , (p)  $-C(=NR^8)R^8$ , (q)  $-C(R^8)(R^8)OR^8$ , (r)  $-C(R^8)_2OC(O)R^8$ , (s)  $-C(R^8)(OR^8)(CH_2)_rNR^8R^8$ , (t)  $-NR^8R^8$ , (u)  $-NR^8OR^8$ , (v)  $-NR^8C(O)R^8$ , (w)  $-NR^8C(O)OR^8$ , (x)  $-NR^8C(O)NR^8R^8$ , (y)  $-NR^8S(O)_rR^8$ , (z)  $-C(OR^8)(OR^8)R^8$ , (aa)  $-C(R^8)_2NR^8R^8$ , (bb)  $=NR^8$ , (cc)  $-C(S)NR^8R^8$ , (dd)  $-NR^8C(S)R^8$ , (ee)  $-OC(S)NR^8R^8$ , (ff)  $-NR^8C(S)OR^8$ , (gg)  $-NR^8C(S)NR^8R^8$ , (hh)  $-SC(O)R^8$ , (ii) a  $C_{1-8}$  alkyl group, (jj) a  $C_{2-8}$  alkenyl group, (kk) a  $C_{2-8}$  alkynyl group, (ll) a  $C_{1-8}$  alkoxy group, (mm) a  $C_{1-8}$  alkylthio group, (nn) a  $C_{1-8}$  acyl group, (oo) a  $C_{3-10}$  saturated, unsaturated, or aromatic carbocycle, and (pp) a 3-10 membered saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, wherein (ii)–(kk) optionally are substituted with one or more  $R^5$  groups;

$R^{12}$  is selected from the group consisting of:

(a) H, (b) a  $C_{1-6}$  alkyl group, (c) a  $C_{2-6}$  alkenyl group, (d) a  $C_{2-6}$  alkynyl group, (e)  $-C(O)R^5$ , (f)  $-C(O)OR^5$ , (g)  $-C(O)-NR^4R^4R^4R^4$ , (h)  $-C(S)R^5$ , (i)  $-C(S)OR^5$ , (j)  $-C(O)SR^5$ , (k)  $-C(S)-NR^4R^4R^4R^4$ , (l) a  $C_{3-10}$  saturated, unsaturated, or aromatic carbocycle, or (m) a 3-10 membered saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, (n) a  $-(C_{1-6} \text{ alkyl})-C_{3-10}$  saturated, unsaturated, or aromatic carbocycle, or (o) a  $-(C_{1-6} \text{ alkyl})$ -3-10 membered saturated, unsaturated, or aromatic



heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur,

wherein (a)–(d) and (l)–(o) optionally are substituted with one or more  $R^5$  groups;

p at each occurrence is 0, 1, or 2;

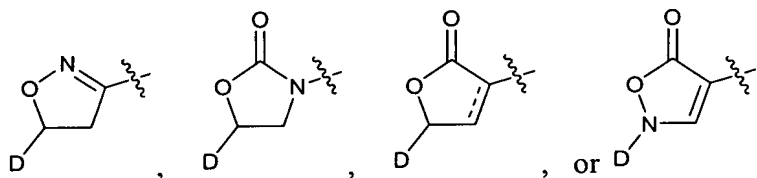
r at each occurrence is 0, 1, or 2;

t at each occurrence is 0, 1, or 2;

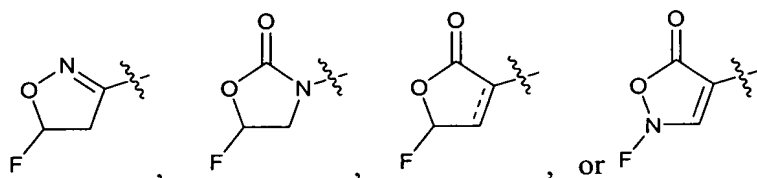
u at each occurrence is 1, 2, 3, or 4;

provided that

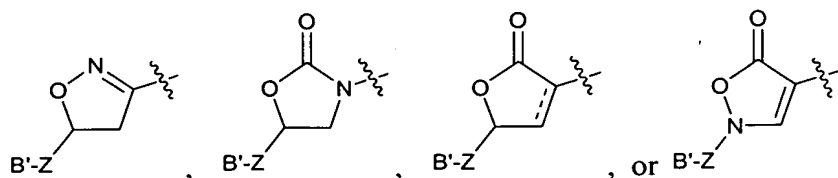
i) when T is a 14 or 15 membered macrolide D–E is not



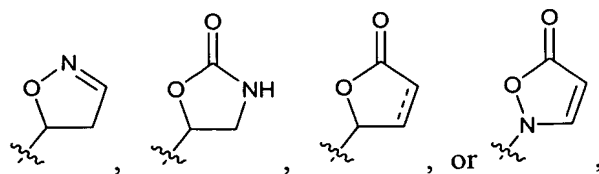
ii) when T is a 14 or 15 membered macrolide F–B' is not



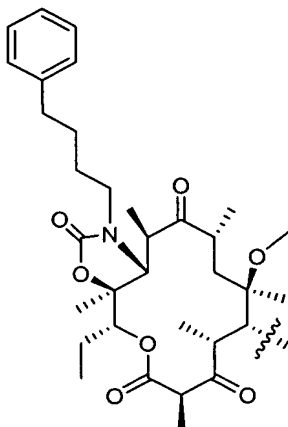
iii) when T is a 14 or 15 membered macrolide B'–Z–B'' is not



iv) when T is a 14 or 15 membered macrolide  $R^{11}$  is not



v) when the compound has formula I and T is



D is not a single bond or a  $-\text{CH}_2-$ ,

vi) when the compound has formula I and T is a 14 or 15 membered macrolide  $-\text{D}-\text{E}-\text{F}-$  is not a  $-\text{CH}_2-$ ,

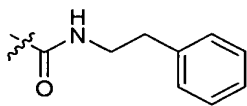
vii) when the compound has formula I and T is a 14 or 15 membered macrolide  $-\text{D}-\text{E}-\text{F}-\text{G}-$  is not a chemical moiety selected from the chemical moieties listed in Table A

**Table A**

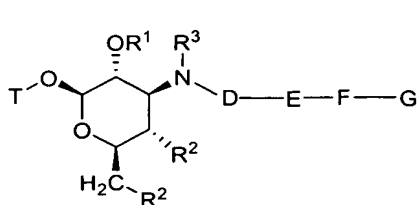

, and

- viii) when the compound has formula II and T is a 16 membered macrolide
- i. -D-E- is not a glycoside attached via its anomeric carbon,
- ii. -D-E-F-G is not a C<sub>1-4</sub> (alkyl), C<sub>2-4</sub>(alkenyl), or C<sub>2-4</sub>(alkynyl) chain bonded to a 5-10 membered monocyclic or bicyclic carbocycle or heterocycle or bonded to a 5 or 6 membered carbocycle or heterocycle further bonded to a 5 or 6 membered carbocycle or heterocycle, any of said carbocycles or heterocycles being optionally substituted with one or more groups selected from the group consisting of (aa) -OH, (bb) -F, (cc) -Cl, (dd) -I, and (ee) -NO<sub>2</sub>, and
- iii. -D-E-F-G- is not a chemical moiety selected from the chemical moieties listed in Table B.

**Table B**

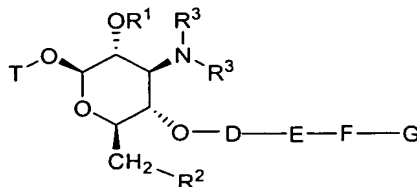
	-(t-butoxycarboxy)-3-(3-quinolyl)
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(Original) A compound according to claim 1, having the formula:



I

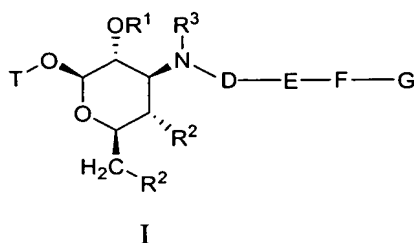
or



II

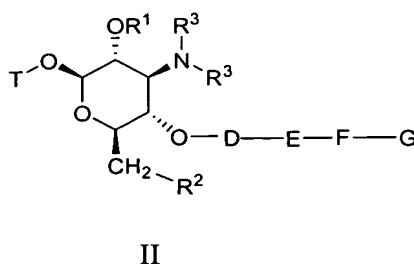
or a pharmaceutically acceptable salt, ester, *N*-oxide, or prodrug thereof wherein T, D, E, F, G, R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are as described in claim 1.

3. (Currently amended) A compound according to claim 1 or 2 having the formula:



or a pharmaceutically acceptable salt, ester, *N*-oxide, or prodrug thereof wherein T, D, E, F, G, R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are as described in claim 1.

4. (Currently amended) A compound according to claim 1 or 2 having the formula:



or a pharmaceutically acceptable salt, ester, *N*-oxide, or prodrug thereof wherein T, D, E, F, G, R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are as described in claim 1.

5. (Currently amended) A compound according to ~~any one of claims 1-4~~claim 1, or a pharmaceutically acceptable salt, ester, *N*-oxide, or prodrug thereof wherein T is a 14- or 15-membered macrolide connected via a macrocyclic ring carbon atom.

6. (Currently amended) A compound according to ~~any one of claims 1-5~~claim 1, or a pharmaceutically acceptable salt, ester, *N*-oxide, or prodrug thereof wherein G is B'.

1           7.       (Currently amended) A compound according to claim 6 or a pharmaceutically  
2 acceptable salt, ester, N-oxide, or prodrug thereof wherein B' is selected from the group consisting  
3 of: (a) an aryl group, (b) a heteroaryl group, (c) a biaryl group, and (d) a fused bicyclic or tricyclic  
4 unsaturated or aromatic ring system optionally containing one or more carbonyl groups and one or  
5 more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, wherein each  
6 (a)-(d) optionally is substituted with one or more R<sup>11</sup> groups.

1           8.       (Currently amended) A compound according to claim 6, or a pharmaceutically  
2 acceptable salt, ester, N-oxide, or prodrug thereof wherein E is

3           (a) a 3-10 membered saturated, unsaturated, or aromatic heterocycle containing one  
4 or more heteroatoms selected from the group consisting of nitrogen, oxygen, and  
5 sulfur,

6           (b) a 3-10 membered saturated, unsaturated, or aromatic carbocycle,

7           (c) a -W-[3-10 membered saturated, unsaturated, or aromatic heterocycle containing  
8 one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and  
9 sulfur],

10          (d) a -W-[ 3-10 membered saturated, unsaturated, or aromatic carbocycle],

11          (e) -C(O)-, (f) -C(O)O-, (g) -C(O)NR<sup>4</sup>-, (h) -C(=NR<sup>4</sup>)-,

12          (i) -C(=NR<sup>4</sup>)O-, (j) -C(=NR<sup>4</sup>)NR<sup>4</sup>-, (k) -OC(O)-, (l) -OC(O)O-,

13          (m) -OC(O)NR<sup>4</sup>-, (n) -NR<sup>4</sup>C(O)-, (o) -NR<sup>4</sup>C(O)O-,

14          (p) -NR<sup>4</sup>C(O)NR<sup>4</sup>-, (q) -NR<sup>4</sup>C(=NR<sup>4</sup>)NR<sup>4</sup>-, (r) -S(O)<sub>p</sub>-,

15          (s) -NR<sup>4</sup>S(O)<sub>2</sub>-, (t) -S(O)<sub>2</sub>NR<sup>4</sup>-, (u) -C(N-OR<sup>4</sup>)-, (v) -C(N-NR<sup>4</sup>R<sup>4</sup>)-,

16          (w) -C(S)NR<sup>4</sup>-, (x) -NR<sup>4</sup>C(S)-, (y) -C(S)O-, or (z) -OC(S)-, wherein

17           i)       any of (a)-(d) immediately above optionally is substituted with one or  
18 more R<sup>5</sup> groups; and

19           ii)      W is selected from the group consisting of:

20           (aa) -OCO-, (bb) -OC(O)O-, (cc) -OC(O)NR<sup>4</sup>-, (dd) -NR<sup>4</sup>C(O)O-,

21           (ee) -OCNOR<sup>4</sup>-, (ff) -NR<sup>4</sup>-C(O)O-, (gg) -C(S)(NR<sup>4</sup>)-, (hh) -NR<sup>4</sup>-,

22           (ii) -OC(S)O-, (jj) -OC(S)NR<sup>4</sup>-, (kk) -NR<sup>4</sup>C(S)O-, (ll) -

23           OC(S)NOR<sup>4</sup>-, (mm) -C(S)O-, (nn) -OC(S)-, (oo) -C(O)-, (pp) -

C(O)O<sup>-</sup>, (qq) -C(O)NR<sup>4</sup>-, (rr) -C(=NR<sup>4</sup>)-, (ss) -C(=NR<sup>4</sup>)O-, (tt) -  
C(=NR<sup>4</sup>)NR<sup>4</sup>-, (uu) -OC(O)-, (vv) -OC(O)O-, (ww) -OC(O)NR<sup>4</sup>-,  
(xx) -NR<sup>4</sup>C(O)-, (yy) -NR<sup>4</sup>C(O)O-, (zz) -NR<sup>4</sup>C(O)NR<sup>4</sup>-, (aaa) -  
NR<sup>4</sup>C(=NR<sup>4</sup>)NR<sup>4</sup>-, (bbb) -S(O)<sub>p</sub>-, (ccc) -NR<sup>4</sup>S(O)<sub>2</sub>-, (ddd) -  
S(O)<sub>2</sub>NR<sup>4</sup>-, (eee) -C(N-OR<sup>4</sup>)-, (fff) -C(N-NR<sup>4</sup>R<sup>4</sup>)-, (ggg) -  
C(S)NR<sup>4</sup>-, or (hhh) -NR<sup>4</sup>C(S)-.

9. (Currently amended) A compound according to ~~any one of claims 1-8~~claim 1; or a  
pharmaceutically acceptable salt, ester, N-oxide, or prodrug thereof wherein

D is selected from the group consisting of (a) a C<sub>1-6</sub> alkyl group, (b) a C<sub>2-6</sub> alkenyl group, and  
(c) a C<sub>2-6</sub> alkynyl group, wherein

- i) 0-2 carbon atoms in any of (a)-(c) of D immediately above optionally  
is replaced by a moiety selected from the group consisting of O, S(O)<sub>p</sub>,  
and NR<sup>4</sup>;
- ii) any of (a)-(c) of D immediately above optionally is substituted with  
one or more R<sup>5</sup> groups; and

F is selected from the group consisting of (a) a single bond, (b) a C<sub>1-6</sub>  
alkyl group, (c) a C<sub>2-6</sub> alkenyl group, and (d) a C<sub>2-6</sub> alkynyl group, wherein

- i) 0-2 carbon atoms in any of (b)-(d) of F immediately above optionally  
is replaced by a moiety selected from the group consisting of O, S(O)<sub>p</sub>,  
and NR<sup>4</sup>;
- ii) any of (b)-(d) of F immediately above optionally is substituted with  
one or more R<sup>5</sup> groups; and
- iii) any of (b)-(d) of F immediately above optionally is substituted with C<sub>1-6</sub>  
alkyl-R<sup>5</sup>.

10. (Currently amended) A compound according to claim 9; or a pharmaceutically  
acceptable salt, ester, N-oxide, or prodrug thereof wherein

E is selected from the group consisting of:

- (a) a 3-10 membered saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur,
- (b) a 3-10 membered saturated, unsaturated, or aromatic carbocycle,
- (c) a  $-W-[3-10 \text{ membered saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur}]$ ,
- (d) a  $-W-[3-10 \text{ membered saturated, unsaturated, or aromatic carbocycle}]$ ,
- (e)  $-C(O)-$ , (f)  $-C(O)O-$ , (g)  $-C(O)NR^4-$ , (h)  $-C(=NR^4)-$ , (i)  $-C(=NR^4)O-$ , (j)  $-C(=NR^4)NR^4-$ , (k)  $-OC(O)-$ , (l)  $-OC(O)O-$ , (m)  $-OC(O)NR^4-$ , (n)  $-NR^4C(O)-$ , (o)  $-NR^4C(O)O-$ , (p)  $-NR^4C(O)NR^4-$ , (q)  $-NR^4C(=NR^4)NR^4-$ , (r)  $-S(O)_p-$ , (s)  $-NR^4S(O)_2-$ , (t)  $-S(O)_2NR^4-$ , (u)  $-C(N-OR^4)-$ , (v)  $-CH_2-$ , (w)  $-C(N-NR^4R^4)-$ , (x)  $-C(S)NR^4$ , (Y)  $-NR^4C(S)-$ , (Z)  $-C(S)O-$ , or (aa)  $-OC(S)-$ , wherein
- i) any of (a)-(d) immediately above optionally is substituted with one or more  $R^5$  groups; and
  - ii) W is selected from the group consisting of:
    - (aa)  $-OCO-$ , (bb)  $-OC(O)O-$ , (cc)  $-OC(O)NR^4-$ , (dd)  $-NR^4C(O)O-$ , (ee)  $-OCNOR^4-$ , (ff)  $-NR^4-C(O)O-$ , (gg)  $-C(S)(NR^4)-$ , (hh)  $-NR^4$ , (ii)  $-OC(S)O-$ , (jj)  $-OC(S)NR^4-$ , (kk)  $-NR^4C(S)O-$ , (ll)  $-OC(S)NOR^4-$ , (mm)  $-C(S)O-$ , (nn)  $-OC(S)$ , (oo)  $-C(O)-$ , (pp)  $-C(O)O-$ , (qq)  $-C(O)NR^4-$ , (rr)  $-C(=NR^4)-$ , (ss)  $-C(=NR^4)O-$ , (tt)  $-C(=NR^4)NR^4-$ , (uu)  $-OC(O)-$ , (vv)  $-OC(O)O-$ , (ww)  $-OC(O)NR^4-$ , (xx)  $-NR^4C(O)-$ , (yy)  $-NR^4C(O)O-$ , (zz)  $-NR^4C(O)NR^4-$ , (aaa)  $-NR^4C(=NR^4)NR^4-$ , (bbb)  $-S(O)_p-$ , (ccc)  $-NR^4S(O)_2-$ , (ddd)  $-S(O)_2NR^4-$ , (eee)  $-C(N-OR^4)-$ , (fff)  $-C(N-NR^4R^4)-$ , (ggg)  $-C(S)NR^4-$ , or (hhh)  $-NR^4C(S)-$ .

11. (Currently amended) A compound according to claim 10; or a pharmaceutically acceptable salt, ester, N-oxide, or prodrug thereof wherein

E is selected from the group consisting of:

(a) a 3-10 membered saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, and

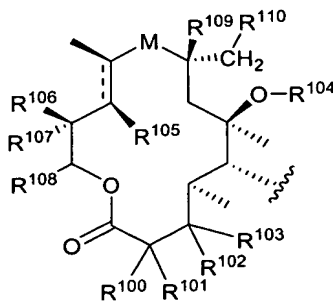
(b) a 3-10 membered saturated, unsaturated, or aromatic carbocycle, wherein (a) and (b) immediately above optionally is substituted with one more R<sup>5</sup> groups.

12. (Currently amended) A compound according to claim 9; or a pharmaceutically acceptable salt, ester, N-oxide, or prodrug thereof wherein

E is selected from the group consisting of:

(a) -C(O)-, (b) -C(O)O-, (c) -C(O)NR<sup>4</sup>-, (d) -C(=NR<sup>4</sup>)-,  
(e) -C(=NR<sup>4</sup>)O-, (f) -C(=NR<sup>4</sup>)NR<sup>4</sup>-, (g) -OC(O)-, (h) -OC(O)O-, (i) -OC(O)NR<sup>4</sup>-,  
(j) -NR<sup>4</sup>C(O)-, (k) -NR<sup>4</sup>C(O)O-, (l) -NR<sup>4</sup>C(O)NR<sup>4</sup>-, (m) -NR<sup>4</sup>C(=NR<sup>4</sup>)NR<sup>4</sup>-, (n) -S(O)<sub>p</sub>-,  
(o) -NR<sup>4</sup>S(O)<sub>2</sub>-, (p) -S(O)<sub>2</sub>NR<sup>4</sup>-, (q) -C(N-OR<sup>4</sup>)-, (r) -CH<sub>2</sub>-, (s) -C(N-NR<sup>4</sup>R<sup>4</sup>)-,  
(t) -C(S)NR<sup>4</sup>-, (u) -NR<sup>4</sup>C(S)-, (v) -C(S)O, and (w) -OC(S)-.

13. (Currently amended) A compound according to any one of according to ~~any one of~~ claims 1-12 claim 1, wherein T is:



or an N-oxide, pharmaceutically acceptable salt, ester or prodrug thereof,  
wherein:



M is selected from the group consisting of:

- (a)  $-C((O)-)$ , (b)  $-CH(-OR^{114})-$ , (c)  $-NR^{114}-CH_2-$ , (d)  $-CH_2-NR^{114}-$ , (e)  $-CH(NR^{114}R^{114})-$ , (f)  $-C(=NNR^{114}R^{114})-$ , (g)  $-NR^{114}-C(O)-$ , (h)  $-C(O)NR^{114}-$ , (i)  $-C(=NR^{114})-$ , and (j)  $-CR^{115}R^{115}-$ , (k)  $-C(=NOR^{127})-$ ;

$R^{100}$  is selected from the group consisting of H and  $C_{1-6}$  alkyl;

$R^{101}$  is selected from the group consisting of:

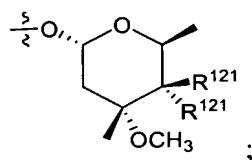
- (a) H, (b) Cl, (c) F, (d) Br, (e) I, (f)  $-NR^{114}R^{114}$ , (g)  $-NR^{114}C(O)R^{114}$ , (h)  $-OR^{114}$ , (i)  $-OC(O)R^{114}$ , (j)  $-OC(O)OR^{114}$ , (k)  $-OC(O)NR^{114}R^{114}$ , (l)  $-O-C_{1-6}$  alkyl, (m)  $-OC(O)-C_{1-6}$  alkyl, (n)  $-OC(O)O-C_{1-6}$  alkyl, (o)  $-OC(O)NR^{114}-C_{1-6}$  alkyl, (p)  $C_{1-6}$  alkyl, (q)  $C_{1-6}$  alkenyl, (r)  $C_{1-6}$  alkynyl,

wherein any of (l) – (r) optionally is substituted with one or more  $R^{115}$  groups;

$R^{102}$  is H;

$R^{103}$  is selected from the group consisting of:

- (a) H, (b)  $-OR^{114}$ , (c)  $-O-C_{1-6}$  alkyl- $R^{115}$ , (d)  $-OC((O)R^{114})$ , (e)  $-OC(O)-C_{1-6}$  alkyl- $R^{115}$ , (f)  $-OC(O)OR^{114}$ , (g)  $-OC(O)O-C_{1-6}$  alkyl- $R^{115}$ , (h)  $-OC(O)NR^{114}R^{114}$ , (i)  $-OC(O)NR^{114}-C_{1-6}$  alkyl- $R^{115}$ , and (j)



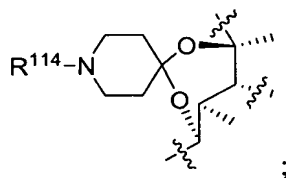
alternatively,  $R^{102}$  and  $R^{103}$  taken together form a carbonyl group;

alternatively,  $R^{101}$  and  $R^{103}$  taken together are a single bond between the respective carbons to which these two groups are attached thereby creating a double bond between the carbons to which  $R^{100}$  and  $R^{102}$  are attached;

alternatively,  $R^{101}$  and  $R^{103}$  taken together are an epoxide moiety.

$R^{104}$  is selected from the group consisting of:

(a) H, (b)  $R^{114}$ , (c)  $-C(O)R^{114}$  (d)  $-C(O)OR^{114}$  (e)  $-C(O)NR^{114}R^{114}$ , (f)  $-C_{1-6}$  alkyl-K- $R^{114}$ , (g)  $-C_{2-6}$  alkenyl-K- $R^{114}$ , and (h)  $-C_{2-6}$  alkynyl-K- $R^{114}$ ,  
alternatively  $R^{103}$  and  $R^{104}$ , taken together with the atoms to which they are bonded, form:



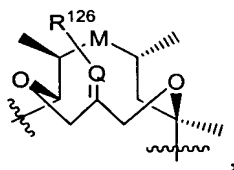
K is selected from the group consisting of:

(a)  $-C(O)-$ , (b)  $-C(O)O-$ , (c)  $-C(O)NR^{114}-$ , (d)  $-C(=NR^{114})-$ , (e)  $-C(=NR^{114})O-$ ,  
(f)  $-C(=NR^{114})NR^{114}-$ , (g)  $-OC(O)-$ , (h)  $-OC(O)O-$ , (i)  $-OC(O)NR^{114}-$ ,  
(j)  $-NR^{114}C(O)-$ , (k)  $-NR^{114}C(O)O-$ , (l)  $-NR^{114}C(O)NR^{114}-$ ,  
(m)  $-NR^{114}C(=NR^{114})NR^{114}-$ , and (o)  $-S(O)_p-$ ;

$R^{105}$  is selected from the group consisting of:

(a)  $R^{114}$ , (b)  $-OR^{114}$ , (c)  $-NR^{114}R^{114}$ , (d)  $-O-C_{1-6}$  alkyl- $R^{115}$ , (e)  $-C(O)-R^{114}$ ,  
(f)  $-C(O)-C_{1-6}$  alkyl- $R^{115}$ , (g)  $-OC(O)-R^{114}$ , (h)  $-OC(O)-C_{1-6}$  alkyl- $R^{115}$ ,  
(i)  $-OC(O)O-R^{114}$ , (j)  $-OC(O)O-C_{1-6}$  alkyl- $R^{115}$ , (k)  $-OC(O)NR^{114}R^{114}$ ,  
(l)  $-OC(O)NR^{114}-C_{1-6}$  alkyl- $R^{115}$ , (m)  $-C(O)-C_{2-6}$  alkenyl- $R^{115}$ , and  
(n)  $-C(O)-C_{2-6}$  alkynyl- $R^{115}$ ;

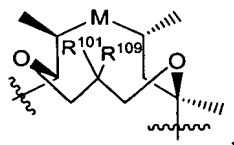
alternatively,  $R^{104}$  and  $R^{105}$ , taken together with the atoms to which they are bonded, form:



wherein

Q is CH or N, and  $R^{126}$  is  $-OR^{114}$ ,  $-NR^{114}$  or  $R^{114}$ ;

alternatively,  $R^{104}$  and  $R^{105}$ , taken together with the atoms to which they are bonded, form:



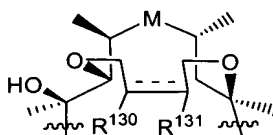
wherein

i)  $R^{101}$  is as defined above;

ii) alternately,  $R^{101}$  and  $R^{109}$  may be taken together form a carbonyl group;

iii) alternately,  $R^{101}$  and  $R^{109}$  may be taken together to form the group –  $O(CR^{116}R^{116})_uO-$ ;

alternatively,  $R^{104}$  and  $R^{105}$ , taken together with the atoms to which they are bonded, form:



i)  $R^{130}$  is  $-OH$ ,  $=C(O)$ , or  $R^{114}$ ,

ii)  $R^{131}$  is  $-OH$ ,  $=C(O)$ , or  $R^{114}$ ,

iii) alternately,  $R^{130}$  and  $R^{131}$  together with the carbons to which they are attached form a 3-7 membered saturated, unsaturated or aromatic carbocyclic or heterocyclic ring which can optionally be substituted with one or more  $R^{114}$  groups;

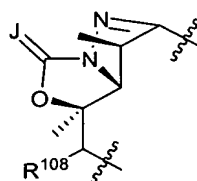
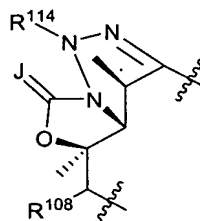
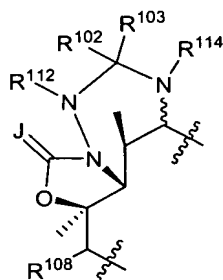
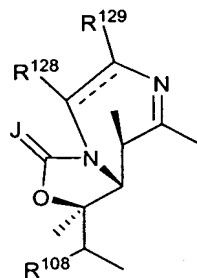
$R^{106}$  is selected from the group consisting of:

- (a)  $-OR^{114}$ , (b)  $-C_{1-6}$  alkoxy- $R^{115}$ , (c)  $-C(O)R^{114}$ , (d)  $-OC(O)R^{114}$ , (e)  $-OC(O)OR^{114}$ , (f)  $-OC(O)NR^{114}R^{114}$ , and (g)  $-NR^{114}R^{114}$ ,

alternatively,  $R^{105}$  and  $R^{106}$  taken together with the atoms to which they are attached form a 5-membered ring by attachment to each other through a chemical moiety selected from the group consisting of:

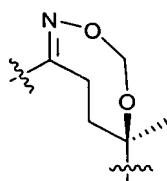
- (a)  $-OC(R^{115})_2O-$ , (b)  $-OC(O)O-$ , (c)  $-OC(O)NR^{114}-$ , (d)  $-NR^{114}C(O)O-$ , (e)  $-OC(O)NOR^{114}-$ , (f)  $-NOR^{114}-C(O)O-$ , (g)  $-OC(O)NNR^{114}R^{114}-$ , (h)  $-NNR^{114}R^{114}-C(O)O-$ , (i)  $-OC(O)C(R^{115})_2-$ , (j)  $-C(R^{115})_2C(O)O-$ , (k)  $-OC(S)O-$ , (l)  $-OC((S)NR^{114}-$ , (m)  $-NR^{114}C(S)O-$ , (n)  $-OC(S)NOR^{114}-$ , (o)  $-NOR^{114}-C(S)O-$ , (p)  $-OC(S)NNR^{114}R^{114}-$ , (q)  $-NNR^{114}R^{114}-C(S)O-$ , (r)  $-OC(S)C(R^{115})_2-$ , and (s)  $-C(R^{115})_2C(S)O-$ ;

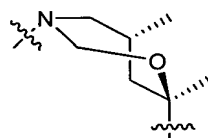
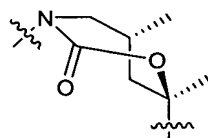
alternatively,  $M$ ,  $R^{105}$ , and  $R^{106}$  taken together with the atoms to which they are attached form:



wherein J is selected from the group consisting of O, S and  $\text{NR}^{114}$ ;

alternatively, M and  $\text{R}^{104}$  taken together with the atoms to which they are attached form:





$R^{107}$  is selected from the group consisting of  
 (a) H, (b)  $-C_{1-4}$  alkyl, (c)  $-C_{2-4}$  alkenyl, which can be further substituted with  $C_{1-12}$  alkyl or one or more halogens, (d)  $-C_{2-4}$  alkynyl, which can be further substituted with  $C_{1-12}$  alkyl or one or more halogens, (e) aryl or heteroaryl, which can be further substituted with  $C_{1-12}$  alkyl or one or more halogens, (f)  $-C(O)H$ , (g)  $-COOH$ , (h)  $-CN$ , (i)  $-COOR^{114}$ , (j)  $-C(O)NR^{114}R^{114}$ , (k)  $-C(O)R^{114}$ , and (l)  $-C(O)SR^{114}$ , wherein (b) is further substituted with one or more substituents selected from the group consisting of (aa)  $-OR^{114}$ , (bb) halogen, (cc)  $-SR^{114}$ , (dd)  $C_{1-12}$  alkyl, which can be further substituted with halogen, hydroxyl,  $C_{1-6}$  alkoxy, or amino, (ee)  $-OR^{114}$ , (ff)  $-SR^{114}$ , (gg)  $-NR^{114}R^{114}$ , (hh)  $-CN$ , (ii)  $-NO_2$ , (jj)  $-NC(O)R^{114}$ , (kk)  $-COOR^{114}$ , (ll)  $-N_3$ , (mm)  $=N-O-R^{114}$ , (nn)  $=NR^{114}$ , (oo)  $=N-NR^{114}R^{114}$ , (pp)  $=N-NH-C(O)R^{114}$ , and (qq)  $=N-NH-C(O)NR^{114}R^{114}$ ;

alternatively  $R^{106}$  and  $R^{107}$  are taken together with the atom to which they are attached to form an epoxide, a carbonyl, an olefin, or a substituted olefin, or a  $C_3-C_7$  carbocyclic, carbonate, or carbamate, wherein the nitrogen of said carbamate can be further substituted with a  $C_1-C_6$  alkyl;

$R^{108}$  is selected from the group consisting of:

(a)  $C_{1-6}$  alkyl, (b)  $C_{2-6}$  alkenyl, and (c)  $C_{2-6}$  alkynyl,

wherein any of (a)–(c) optionally is substituted with one or more  $R^{114}$  groups;

$R^{111}$  is selected from the group consisting of H and  $-C(O)R^{114}$ ;

$R^{112}$  is selected from the group consisting of H, OH, and  $OR^{114}$ ;

$R^{113}$  is selected from the group consisting of:

(a) H, (b)  $R^{114}$ , (c)  $-C_{1-6}$  alkyl- $K-R^{114}$ , (d)  $-C_{2-6}$  alkenyl- $K-R^{114}$ , and  
(e)  $-C_{2-6}$  alkynyl- $K-R^{114}$ ,

wherein any of (c)-(e) optionally is substituted with one or more  $R^{115}$  groups;  
 $R^{114}$ , at each occurrence, independently is selected from the group consisting of:

(a) H, (b)  $C_{1-6}$  alkyl, (c)  $C_{2-6}$  alkenyl, (d)  $C_{2-6}$  alkynyl, (e)  $C_{6-10}$  saturated, unsaturated,  
or aromatic carbocycle, (f) 3-12 membered saturated, unsaturated, or aromatic  
heterocycle containing one or more heteroatoms selected from the group consisting  
of nitrogen, oxygen, and sulfur, (g)  $-C(O)-C_{1-6}$  alkyl, (h)  $-C(O)-C_{2-6}$  alkenyl, (i)  $-C(O)-C_{2-6}$  alkynyl, (j)  $-C(O)-C_{6-10}$  saturated, unsaturated, or aromatic carbocycle, (k)  
 $-C(O)-3-12$  membered saturated, unsaturated, or aromatic heterocycle containing  
one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and  
sulfur, (l)  $-C(O)O-C_{1-6}$  alkyl, (m)  $-C(O)O-C_{2-6}$  alkenyl, (n)  $-C(O)O-C_{2-6}$  alkynyl,  
(o)  $-C(O)O-C_{6-10}$  saturated, unsaturated, or aromatic carbocycle, (p)  $-C(O)O-3-12$   
membered saturated, unsaturated, or aromatic heterocycle containing one or more  
heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, and  
(q)  $-C(O)NR^{116}R^{116}$ ,

wherein any of (b)-(p) optionally is substituted with one or more  $R^{115}$  groups,  
wherein one or more non-terminal carbon moieties of any of (b)-(d)  
optionally is replaced with oxygen,  $S(O)_p$ , or  $-NR^{116}$ ,

alternatively,  $NR^{114}R^{114}$  forms a 3-7 membered saturated, unsaturated or aromatic ring  
including the nitrogen atom to which the  $R^{114}$  groups are bonded and optionally one or more  
moieties selected from the group consisting of O,  $S(O)_p$ , N, and  $NR^{118}$ ;

$R^{115}$  is selected from the group consisting of:

(a)  $R^{117}$ , (b)  $C_{1-8}$  alkyl, (c)  $C_{2-8}$  alkenyl, (d)  $C_{2-8}$  alkynyl, (e)  $C_{3-12}$  saturated,  
unsaturated, or aromatic carbocycle, (f) 3-12 membered saturated, unsaturated, or  
aromatic heterocycle containing one or more heteroatoms selected from the group  
consisting of nitrogen, oxygen, and sulfur,

wherein any of (b)-(f) optionally is substituted with one or more  $R^{117}$  groups;  
 $R^{116}$ , at each occurrence, independently is selected from the group consisting of:

(a) H, (b) C<sub>1-6</sub> alkyl, (c) C<sub>2-6</sub> alkenyl, (d) C<sub>2-6</sub> alkynyl, (e) C<sub>3-10</sub> saturated, unsaturated, or aromatic carbocycle, and (f) 3-10 membered saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur,

wherein one or more non-terminal carbon moieties of any of (b)–(d) optionally is replaced with oxygen, S(O)<sub>p</sub>, or –NR<sup>114</sup>, wherein any of (b)–(f) optionally is substituted with one or more moieties selected from the group consisting of:

(aa) carbonyl, (bb) formyl, (cc) F, (dd) Cl, (ee) Br, (ff) I, (gg) CN, (hh) N<sub>3</sub>, (ii) NO<sub>2</sub>, (jj) OR<sup>118</sup>, (kk) –S(O)<sub>p</sub>R<sup>118</sup>, (ll) –C(O)R<sup>118</sup>, (mm) –C(O)OR<sup>118</sup>, (nn) –OC(O)R<sup>118</sup>, (oo) –C(O)NR<sup>118</sup>R<sup>118</sup>, (pp) –OC(O)NR<sup>118</sup>R<sup>118</sup>, (qq) –C(=NR<sup>118</sup>)R<sup>118</sup>, (rr) –C(R<sup>118</sup>)(R<sup>118</sup>)OR<sup>118</sup>, (ss) –C(R<sup>118</sup>)<sub>2</sub>OC(O)R<sup>118</sup>, (tt) –C(R<sup>118</sup>)(OR<sup>118</sup>)(CH<sub>2</sub>)<sub>r</sub>NR<sup>118</sup>R<sup>118</sup>, (uu) –NR<sup>118</sup>R<sup>118</sup>; (vv) –NR<sup>118</sup>OR<sup>118</sup>, (ww) –NR<sup>118</sup>C(O)R<sup>118</sup>, (xx) –NR<sup>118</sup>C(O)OR<sup>118</sup>, (yy) –NR<sup>118</sup>C(O)NR<sup>118</sup>R<sup>118</sup>, (zz) –NR<sup>118</sup>S(O)<sub>r</sub>R<sup>118</sup>, (ab) –C(OR<sup>118</sup>)(OR<sup>118</sup>)R<sup>118</sup>, (ac) –C(R<sup>118</sup>)<sub>2</sub>NR<sup>118</sup>R<sup>118</sup>, (ad) =NR<sup>118</sup>, (ae) –C(S)NR<sup>118</sup>R<sup>118</sup>, (af) –NR<sup>118</sup>C(S)R<sup>118</sup>, (ag) –OC(S)NR<sup>118</sup>R<sup>118</sup>, (ah) –NR<sup>118</sup>C(S)OR<sup>118</sup>, (ai) –NR<sup>118</sup>C(S)NR<sup>118</sup>R<sup>118</sup>, (aj) –SC(O)R<sup>118</sup>, (ak) C<sub>1-8</sub> alkyl, (al) C<sub>2-8</sub> alkenyl, (am) C<sub>2-8</sub> alkynyl, (an) C<sub>1-8</sub> alkoxy, (ao) C<sub>1-8</sub> alkylthio, (ap) C<sub>1-8</sub> acyl, (aq) saturated, unsaturated, or aromatic C<sub>3-10</sub> carbocycle, and (ar) saturated, unsaturated, or aromatic 3-10 membered heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur,

alternatively, NR<sup>116</sup>R<sup>116</sup> forms a 3-10 membered saturated, unsaturated or aromatic ring including the nitrogen atom to which the R<sup>116</sup> groups are attached and optionally one or more moieties selected from the group consisting of O, S(O)<sub>p</sub>, N, and NR<sup>118</sup>;

alternatively, CR<sup>116</sup>R<sup>116</sup> forms a carbonyl group;

R<sup>117</sup>, at each occurrence, is selected from the group consisting of:

(a) H, (b) =O, (c) F, (d) Cl, (e) Br, (f) I, (g) (CR<sup>116</sup>R<sup>116</sup>)<sub>r</sub>CF<sub>3</sub>, (h) (CR<sup>116</sup>R<sup>116</sup>)<sub>r</sub>CN, (i) (CR<sup>116</sup>R<sup>116</sup>)<sub>r</sub>NO<sub>2</sub>, (j) (CR<sup>116</sup>R<sup>116</sup>)<sub>r</sub>NR<sup>116</sup>(CR<sup>116</sup>R<sup>116</sup>)<sub>r</sub>R<sup>119</sup>, (k) (CR<sup>116</sup>R<sup>116</sup>)<sub>r</sub>OR<sup>119</sup>,

(l)  $(\text{CR}^{116}\text{R}^{116})_r\text{S}(\text{O})_p(\text{CR}^{116}\text{R}^{116})_t\text{R}^{119}$ , (m)  $(\text{CR}^{116}\text{R}^{116})_r\text{C}(\text{O})(\text{CR}^{116}\text{R}^{116})_t\text{R}^{119}$ ,  
 (n)  $(\text{CR}^{116}\text{R}^{116})_r\text{OC}(\text{O})(\text{CR}^{116}\text{R}^{116})_t\text{R}^{119}$ , (o)  $(\text{CR}^{116}\text{R}^{116})_r\text{SC}(\text{O})(\text{CR}^{116}\text{R}^{116})_t\text{R}^{119}$ ,  
 (p)  $(\text{CR}^{116}\text{R}^{116})_r\text{C}(\text{O})\text{O}(\text{CR}^{116}\text{R}^{116})_t\text{R}^{119}$ , (q)  $(\text{CR}^{116}\text{R}^{116})_r\text{NR}^{116}\text{C}(\text{O})(\text{CR}^{116}\text{R}^{116})_t\text{R}^{119}$ ,  
 (r)  $(\text{CR}^{116}\text{R}^{116})_r\text{C}(\text{O})\text{NR}^{116}(\text{CR}^{116}\text{R}^{116})_t\text{R}^{119}$ , (s)  $(\text{CR}^{116}\text{R}^{116})_r\text{C}(=\text{NR}^{116})(\text{CR}^{116}\text{R}^{116})_t\text{R}^{119}$ ,  
 (t)  $(\text{CR}^{116}\text{R}^{116})_r\text{C}(=\text{NNR}^{116}\text{R}^{116})(\text{CR}^{116}\text{R}^{116})_t\text{R}^{119}$ ,  
 (u)  $(\text{CR}^{116}\text{R}^{116})_r\text{C}(=\text{NNR}^{116}\text{C}(\text{O})\text{R}^{116})(\text{CR}^{116}\text{R}^{116})_t\text{R}^{119}$ , (v)  $(\text{CR}^{116}\text{R}^{116})_r\text{C}(=\text{NOR}^{119})(\text{CR}^{116}\text{R}^{116})_t\text{R}^{119}$ ,  
 (w)  $(\text{CR}^{116}\text{R}^{116})_r\text{NR}^{116}\text{C}(\text{O})\text{O}(\text{CR}^{116}\text{R}^{116})_t\text{R}^{119}$ ,  
 (x)  $(\text{CR}^{116}\text{R}^{116})_r\text{OC}(\text{O})\text{NR}^{116}(\text{CR}^{116}\text{R}^{116})_t\text{R}^{119}$ ,  
 (y)  $(\text{CR}^{116}\text{R}^{116})_r\text{NR}^{116}\text{C}(\text{O})\text{NR}^{116}(\text{CR}^{116}\text{R}^{116})_t\text{R}^{119}$ ,  
 (z)  $(\text{CR}^{116}\text{R}^{116})_r\text{NR}^{116}\text{S}(\text{O})_p(\text{CR}^{116}\text{R}^{116})_t\text{R}^{119}$ ,  
 (aa)  $(\text{CR}^{116}\text{R}^{116})_r\text{S}(\text{O})_p\text{NR}^{116}(\text{CR}^{116}\text{R}^{116})_t\text{R}^{119}$ ,  
 (bb)  $(\text{CR}^{116}\text{R}^{116})_r\text{NR}^{116}\text{S}(\text{O})_p\text{NR}^{116}(\text{CR}^{116}\text{R}^{116})_t\text{R}^{119}$ , (cc)  $(\text{CR}^{116}\text{R}^{116})_r\text{NR}^{116}\text{R}^{116}$ ,  
 (dd)  $\text{C}_{1-6}$  alkyl, (ee)  $\text{C}_{2-6}$  alkenyl, (ff)  $\text{C}_{2-6}$  alkynyl, (gg)  $(\text{CR}^{116}\text{R}^{116})_r\text{C}_{3-10}$  saturated,  
 unsaturated, or aromatic carbocycle, and (hh)  $(\text{CR}^{116}\text{R}^{116})_r\text{C}_{3-10}$  membered saturated,  
 unsaturated, or aromatic heterocycle containing one or more heteroatoms selected  
 from the group consisting of nitrogen, oxygen, and sulfur,

wherein any of (dd)–(hh) optionally is substituted with one or more  $\text{R}^{119}$   
 groups;

alternatively, two  $\text{R}^{117}$  groups may form  $-\text{O}(\text{CH}_2)_u\text{O}-$ ;

$\text{R}^{118}$  is selected from the group consisting of:

(a) H, (b)  $\text{C}_{1-6}$  alkyl, (c)  $\text{C}_{2-6}$  alkenyl, (d)  $\text{C}_{2-6}$  alkynyl, (e)  $\text{C}_{3-10}$  saturated, unsaturated,  
 or aromatic carbocycle, (f) 3-10 membered saturated, unsaturated, or aromatic  
 heterocycle containing one or more heteroatoms selected from the group consisting  
 of nitrogen, oxygen, and sulfur, (g)  $-\text{C}(\text{O})-\text{C}_{1-6}$  alkyl, (h)  $-\text{C}(\text{O})-\text{C}_{1-6}$  alkenyl, (g)  $-\text{C}(\text{O})-\text{C}_{1-6}$  alkynyl, (i)  $-\text{C}(\text{O})-\text{C}_{3-10}$  saturated, unsaturated, or aromatic carbocycle,  
 and (j)  $-\text{C}(\text{O})-\text{C}_{3-10}$  membered saturated, unsaturated, or aromatic heterocycle  
 containing one or more heteroatoms selected from the group consisting of nitrogen,  
 oxygen, and sulfur,

wherein any of (b)–(j) optionally is substituted with one or more moieties  
 selected from the group consisting of: (aa) H, (bb) F, (cc) Cl, (dd) Br, (ee) I,



(ff) CN, (gg) NO<sub>2</sub>, (hh) OH, (ii) NH<sub>2</sub>, (jj) NH(C<sub>1-6</sub> alkyl), (kk) N(C<sub>1-6</sub> alkyl)<sub>2</sub>, (ll) C<sub>1-6</sub> alkoxy, (mm) aryl, (nn) substituted aryl, (oo) heteroaryl, (pp) substituted heteroaryl, and (qq) C<sub>1-6</sub> alkyl, optionally substituted with one or more moieties selected from the group consisting of aryl, substituted aryl, heteroaryl, substituted heteroaryl, F, Cl, Br, I, CN, NO<sub>2</sub>, and OH;

R<sup>119</sup>, at each occurrence, independently is selected from the group consisting of:

(a) R<sup>120</sup>, (b) C<sub>1-6</sub> alkyl, (c) C<sub>2-6</sub> alkenyl, (d) C<sub>2-6</sub> alkynyl, (e) C<sub>3-10</sub> saturated, unsaturated, or aromatic carbocycle, and (f) 3-10 membered saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur,

wherein any of (b)–(f) optionally is substituted with one or more R<sup>119</sup> groups;

R<sup>120</sup>, at each occurrence, independently is selected from the group consisting of:

(a) H, (b) =O, (c) F, (d) Cl, (e) Br, (f) I, (g) (CR<sup>116</sup>R<sup>116</sup>)<sub>r</sub>CF<sub>3</sub>, (h) (CR<sup>116</sup>R<sup>116</sup>)<sub>r</sub>CN, (i) (CR<sup>116</sup>R<sup>116</sup>)<sub>r</sub>NO<sub>2</sub>, (j) (CR<sup>116</sup>R<sup>116</sup>)<sub>r</sub>NR<sup>116</sup>R<sup>116</sup>, (k) (CR<sup>116</sup>R<sup>116</sup>)<sub>r</sub>OR<sup>114</sup>, (l) (CR<sup>116</sup>R<sup>116</sup>)<sub>r</sub>S(O)<sub>p</sub>R<sup>116</sup>, (m) (CR<sup>116</sup>R<sup>116</sup>)<sub>r</sub>C(O)R<sup>116</sup>, (n) (CR<sup>116</sup>R<sup>116</sup>)<sub>r</sub>C(O)OR<sup>116</sup>, (o) (CR<sup>116</sup>R<sup>116</sup>)<sub>r</sub>OC(O)R<sup>116</sup>, (p) (CR<sup>116</sup>R<sup>116</sup>)<sub>r</sub>NR<sup>116</sup>C(O)R<sup>116</sup>, (q) (CR<sup>116</sup>R<sup>116</sup>)<sub>r</sub>C(O)NR<sup>116</sup>R<sup>116</sup>, (r) (CR<sup>116</sup>R<sup>116</sup>)<sub>r</sub>C(=NR<sup>116</sup>)R<sup>116</sup>, (s) (CR<sup>116</sup>R<sup>116</sup>)<sub>r</sub>NR<sup>116</sup>C(O)NR<sup>116</sup>R<sup>116</sup>, (t) (CR<sup>116</sup>R<sup>116</sup>)<sub>r</sub>NR<sup>116</sup>S(O)<sub>p</sub>R<sup>116</sup>, (u) (CR<sup>116</sup>R<sup>116</sup>)<sub>r</sub>S(O)<sub>p</sub>NR<sup>116</sup>R<sup>116</sup>, (v) (CR<sup>116</sup>R<sup>116</sup>)<sub>r</sub>NR<sup>116</sup>S(O)<sub>p</sub>NR<sup>116</sup>R<sup>116</sup>, (w) C<sub>1-6</sub> alkyl, (x) C<sub>2-6</sub> alkenyl, (y) C<sub>2-6</sub> alkynyl, (z) (CR<sup>116</sup>R<sup>116</sup>)<sub>r</sub>C<sub>3-10</sub> saturated, unsaturated, or aromatic carbocycle, and (aa) (CR<sup>116</sup>R<sup>116</sup>)<sub>r</sub>3-10 membered saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur,

wherein any of (w)–(aa) optionally is substituted with one or more moieties selected from the group consisting of R<sup>116</sup>, F, Cl, Br, I, CN, NO<sub>2</sub>, –OR<sup>116</sup>, –NH<sub>2</sub>, –NH(C<sub>1-6</sub> alkyl), –N(C<sub>1-6</sub> alkyl)<sub>2</sub>, C<sub>1-6</sub> alkoxy, C<sub>1-6</sub> alkylthio, and C<sub>1-6</sub> acyl;

R<sup>121</sup>, at each occurrence, independently is selected from the group consisting of:

(a) H, (b)  $-OR^{118}$ , (c)  $-O-C_{1-6}$  alkyl- $OC(O)R^{118}$ , (d)  $-O-C_{1-6}$  alkyl- $OC(O)OR^{118}$ ,  
 (e)  $-O-C_{1-6}$  alkyl- $OC(O)NR^{118}R^{118}$ , (f)  $-O-C_{1-6}$  alkyl- $C(O)NR^{118}R^{118}$ , (g)  $-O-$   
 $C_{1-6}$  alkyl- $NR^{118}C(O)R^{118}$ , (h)  $-O-C_{1-6}$  alkyl- $NR^{118}C(O)OR^{118}$ , (i)  $-O-C_{1-6}$  alkyl-  
 $NR^{118}C(O)NR^{118}R^{118}$ , (j)  $-O-C_{1-6}$  alkyl- $NR^{118}C(=N(H)NR^{118}R^{118})$ , (k)  $-O-C_{1-6}$  alkyl-  
 $S(O)_pR^{118}$ , (l)  $-O-C_{2-6}$  alkenyl- $OC(O)R^{118}$ , (m)  $-O-C_{2-6}$  alkenyl- $OC(O)OR^{118}$ , (n)  $-$   
 $O-C_{2-6}$  alkenyl- $OC(O)NR^{118}R^{118}$ , (o)  $-O-C_{2-6}$  alkenyl- $C(O)NR^{118}R^{118}$ , (p)  $-O-$   
 $C_{2-6}$  alkenyl- $NR^{118}C(O)R^{118}$ , (q)  $-O-C_{2-6}$  alkenyl- $NR^{118}C(O)OR^{118}$ , (r)  $-O-$   
 $C_{2-6}$  alkenyl- $NR^{118}C(O)NR^{118}R^{118}$ , (s)  $-O-C_{2-6}$  alkenyl- $NR^{118}C(=N(H)NR^{118}R^{118})$ ,  
 (t)  $-O-C_{2-6}$  alkenyl- $S(O)_pR^{118}$ ,  
 (u)  $-O-C_{2-6}$  alkynyl- $OC(O)R^{118}$ , (v)  $-O-C_{2-6}$  alkynyl- $OC(O)OR^{118}$ ,  
 (w)  $-O-C_{2-6}$  alkynyl- $OC(O)NR^{118}R^{118}$ , (x)  $-O-C_{2-6}$  alkynyl- $C(O)NR^{118}R^{118}$ , (y)  $-O-$   
 $C_{2-6}$  alkynyl- $NR^{118}C(O)R^{118}$ , (z)  $-O-C_{2-6}$  alkynyl- $NR^{118}C(O)OR^{118}$ , (aa)  $-O-$   
 $C_{2-6}$  alkynyl- $NR^{118}C(O)NR^{118}R^{118}$ ,  
 (bb)  $-O-C_{2-6}$  alkynyl- $NR^{118}C(=N(H)NR^{118}R^{118})$ , (cc)  $-O-C_{2-6}$  alkynyl- $S(O)_pR^{118}$ ; and  
 (dd)  $-NR^{118}R^{118}$ ;

alternatively, two  $R^{121}$  groups taken together form  $=O$ ,  $=NOR^{118}$ , or  $=NNR^{118}R^{118}$ ;  
 $R^{122}$  is  $R^{115}$ ;

$R^{123}$  is selected from the group consisting of:

(a)  $R^{116}$ , (b) F, (c) Cl, (d) Br, (e) I, (f) CN, (g)  $NO_2$ , and (h)  $-OR^{114}$ ;

alternatively,  $R^{122}$  and  $R^{123}$  taken together are  $-O(CH_2)_uO-$ ;

$R^{124}$ , at each occurrence, independently is selected from the group consisting of:

(a) H, (b) F, (c) Cl, (d) Br, (e) I, (f) CN, (g)  $-OR^{114}$ , (h)  $-NO_2$ , (i)  $-NR^{114}R^{114}$ , (j)  $C_{1-6}$   
 alkyl, (k)  $C_{1-6}$  acyl, and (l)  $C_{1-6}$  alkoxy;

$R^{125}$  is selected from the group consisting of:

(a)  $C_{1-6}$  alkyl, (b)  $C_{2-6}$  alkenyl, (c)  $C_{2-6}$  alkynyl, (d)  $C_{1-6}$  acyl, (e)  $C_{1-6}$  alkoxy,  
 (f)  $C_{1-6}$  alkylthio, (g) saturated, unsaturated, or aromatic  $C_{5-10}$  carbocycle,  
 (h) saturated, unsaturated, or aromatic 5-10 membered heterocycle containing one or  
 more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur,  
 (i)  $-O-C_{1-6}$  alkyl-saturated, unsaturated, or aromatic 5-10 membered heterocycle  
 containing one or more heteroatoms selected from the group consisting of nitrogen,

oxygen, and sulfur, (j)  $-NR^{114}-C_{1-6}$  alkyl-saturated, unsaturated, or aromatic 5-10  
membered heterocycle containing one or more heteroatoms selected from the group  
consisting of nitrogen, oxygen, and sulfur, (k) saturated, unsaturated, or aromatic 10-  
membered bicyclic ring system optionally containing one or more heteroatoms  
selected from the group consisting of nitrogen, oxygen, and sulfur, (l) saturated,  
unsaturated, or aromatic 13-membered tricyclic ring system optionally containing  
one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and  
sulfur, (m)  $-OR^{114}$ ,  
(n)  $-NR^{114}R^{114}$ , (o)  $-S(O)_pR^{114}$ , and (p)  $-R^{124}$ ,

wherein any of (a)-(l) optionally is substituted with one or more  $R^{115}$  groups;  
alternatively,  $R^{125}$  and one  $R^{124}$  group, taken together with the atoms to which they are  
bonded, form a 5-7 membered saturated or unsaturated carbocycle, optionally substituted with one  
or more  $R^{115}$  groups; or a 5-7 membered saturated or unsaturated heterocycle containing one or  
more atoms selected from the group consisting of nitrogen, oxygen, and sulfur, and optionally  
substituted with one or more  $R^{115}$  groups;

$R^{126}$  at each occurrence, independently is selected from the group consisting of:

(a) hydrogen, (b) an electron-withdrawing group, (c) aryl, (d) substituted aryl,  
(e) heteroaryl, (f) substituted heteroaryl, and (g)  $C_{1-6}$  alkyl, optionally substituted  
with one or more  $R^{115}$  groups;

alternatively, any  $R^{126}$  and any  $R^{123}$ , taken together with the atoms to which they are bonded,  
form a 5-7 membered saturated or unsaturated carbocycle, optionally substituted with one or more  
 $R^{115}$  groups; or a 5-7 membered saturated or unsaturated heterocycle containing one or more atoms  
selected from the group consisting of nitrogen, oxygen, and sulfur, and optionally substituted with  
one or more  $R^{115}$  groups;

$R^{109}$  is H or F;

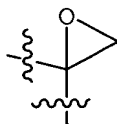
$R^{127}$  is  $R^{114}$ , a monosaccharide or disaccharide (including amino sugars and halo sugar(s),  $-(CH_2)_n-(O-CH_2CH_2-)_m-O(CH_2)_pCH_3$  or  $-(CH_2)_n-(O-CH_2CH_2-)_m-OH$

$R^{128}$  is  $R^{114}$

$R^{129}$  is  $R^{114}$

$R^{110}$  is  $R^{114}$

Alternatively,  $R^{109}$  and  $R^{110}$  taken together with the carbons to which they are attached form:

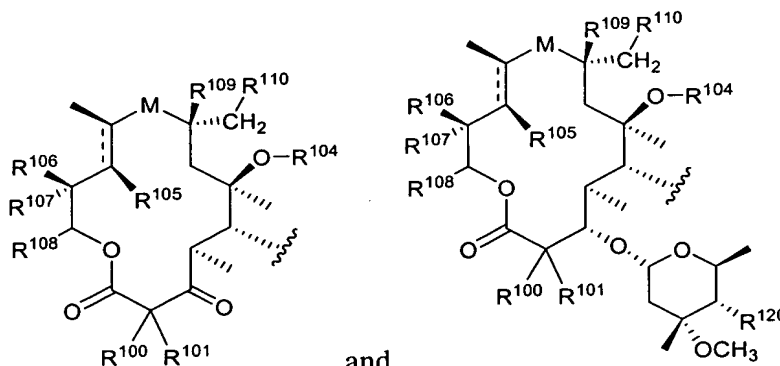


Alternately,  $R^{128}$  and  $R^{129}$  together with the carbons to which they are attached form a 3-6 membered saturated, unsaturated or aromatic carbocyclic or heterocyclic ring which may optionally be substituted with one or more  $R^{114}$  groups;

m, at each occurrence is 0, 1, 2, 3, 4, or 5;

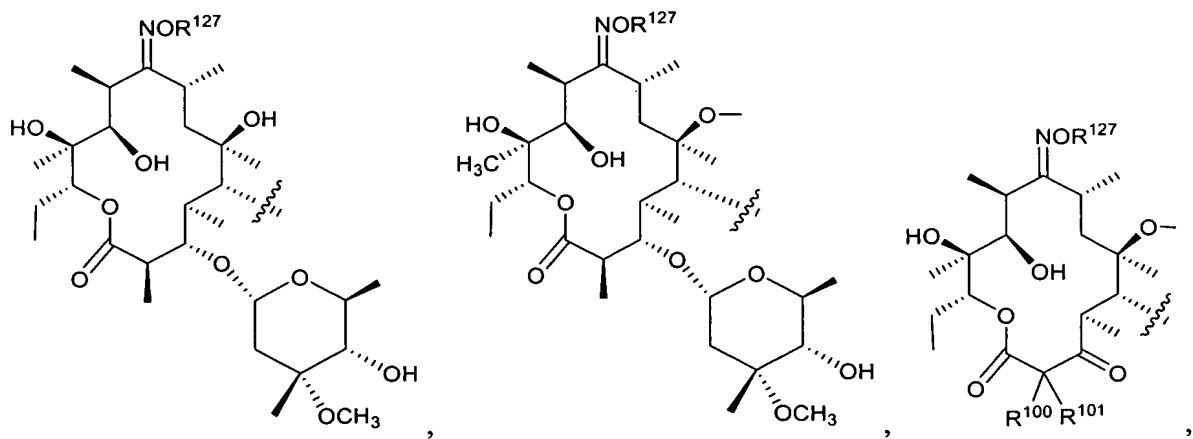
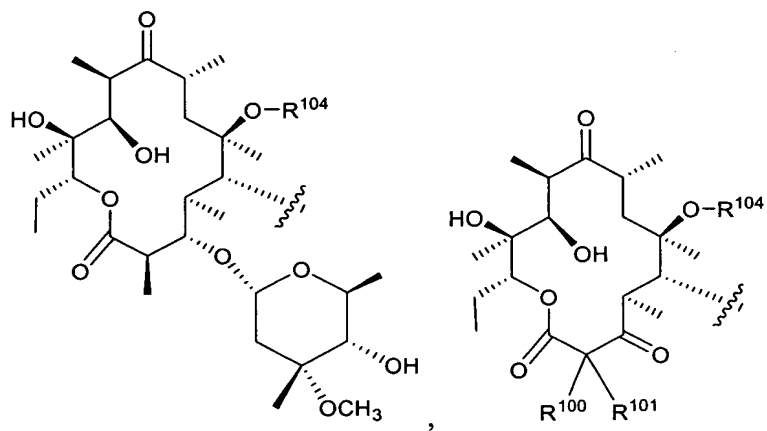
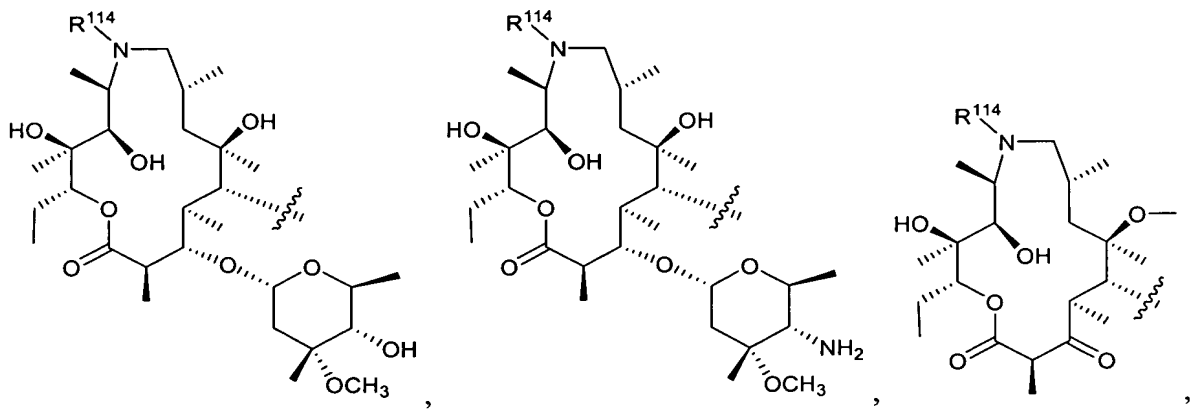
n, at each occurrence is 1, 2, or 3.

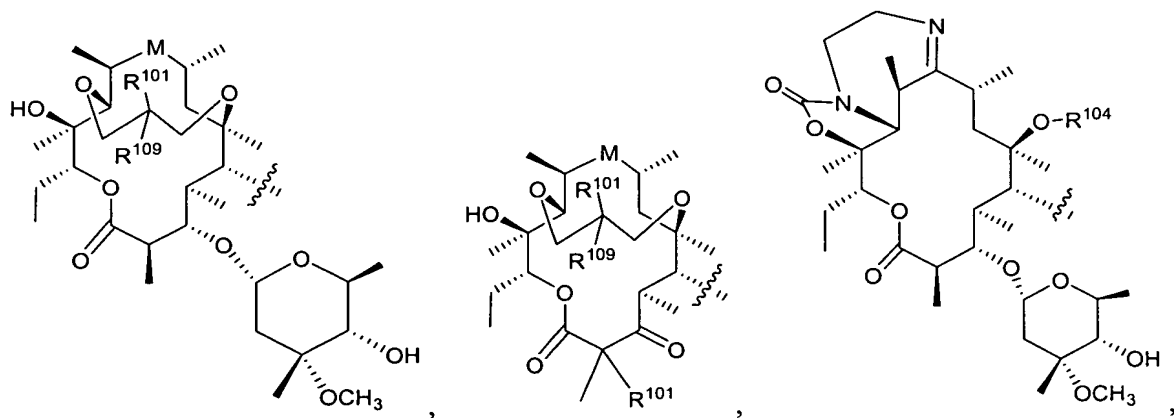
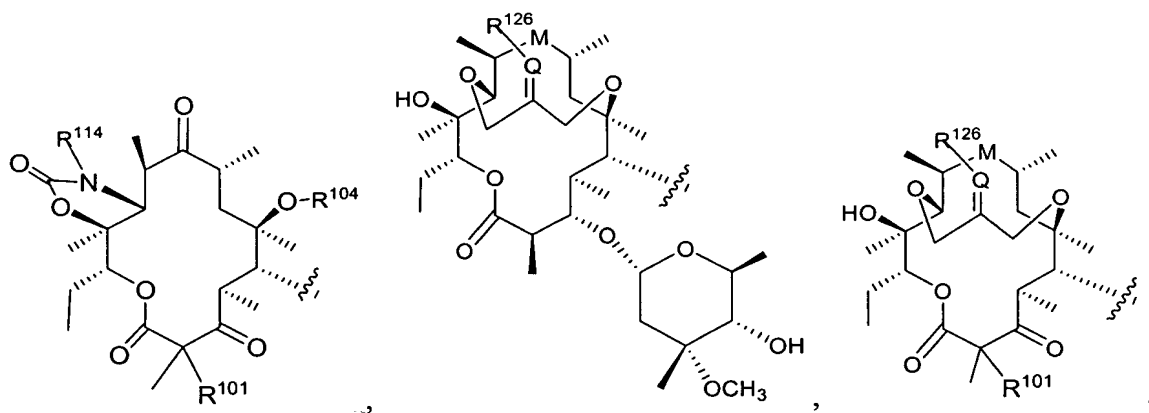
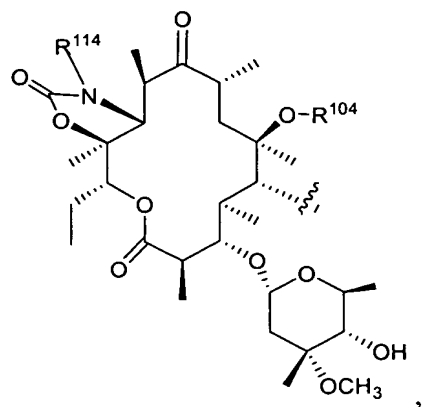
14. (Currently amended) A compound according to ~~any one of claims 1-13~~ claim 1, wherein T is a macrolide selected from the group consisting of:

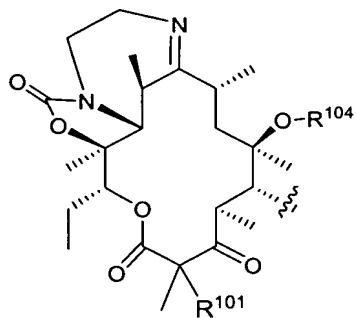


or an *N*-oxide pharmaceutically acceptable salt, ester, or prodrug thereof, wherein M,  $R^{100}$ ,  $R^{101}$ ,  $R^{104}$ ,  $R^{105}$ ,  $R^{106}$ ,  $R^{107}$ ,  $R^{108}$ ,  $R^{109}$ ,  $R^{110}$ , and  $R^{120}$  are as described in claim 13.

15. (Currently amended) A compound according to ~~any one of claims 1-14~~ claim 1, wherein T is a macrolide selected from the group consisting of:





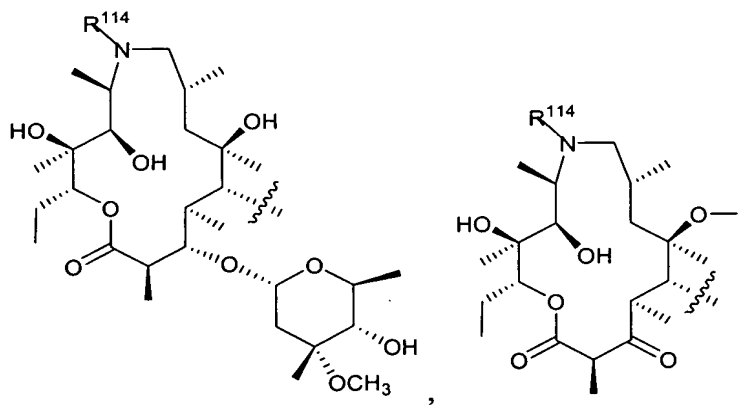


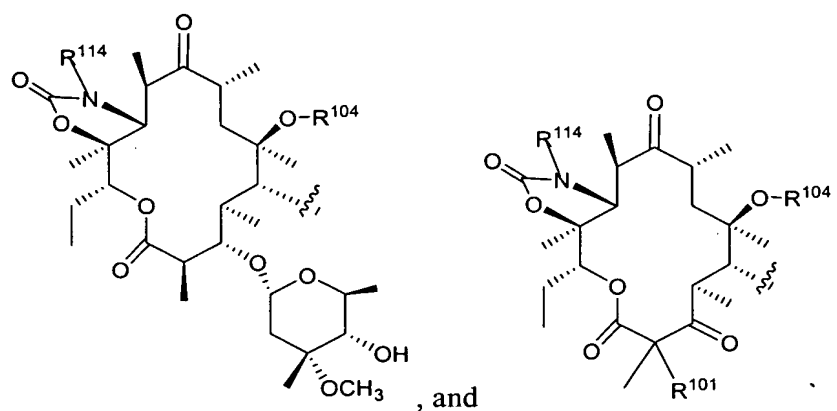
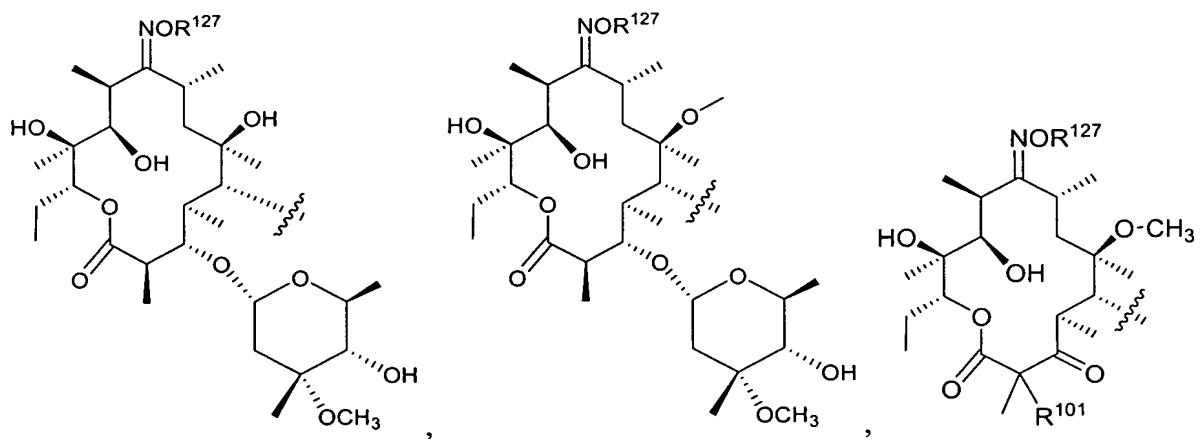
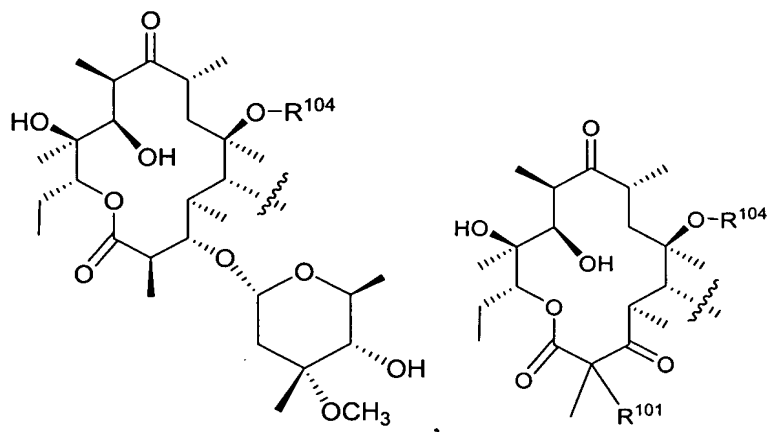
and ;

or an *N*-oxide pharmaceutically acceptable salt, ester, or prodrug thereof,

wherein M, R<sup>100</sup>, R<sup>101</sup>, R<sup>102</sup>, R<sup>104</sup>, R<sup>109</sup>, R<sup>114</sup>, R<sup>126</sup> and R<sup>127</sup> are as described in claim 13.

16. (Currently amended) A compound according to ~~any one of claims 1-15~~ claim 1,  
wherein T is a macrolide selected from the group consisting of:



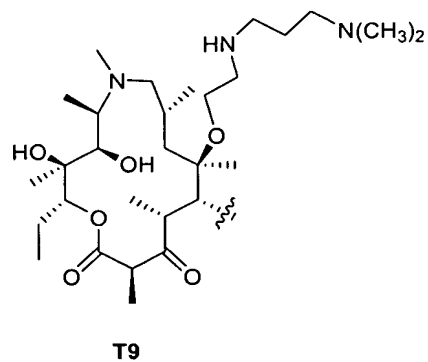
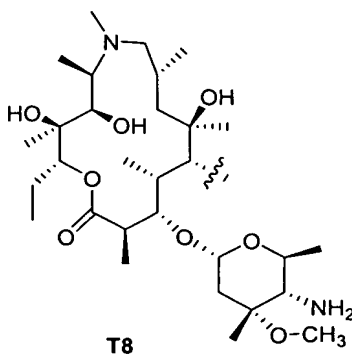
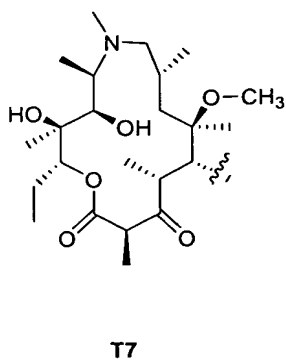
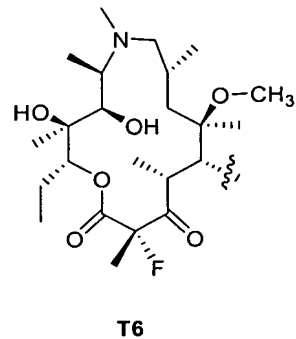
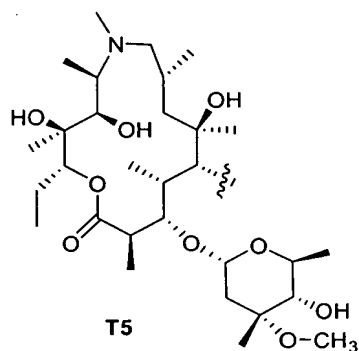
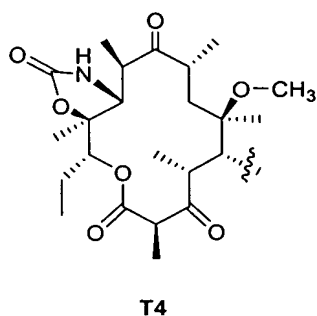
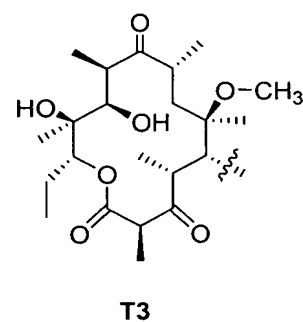
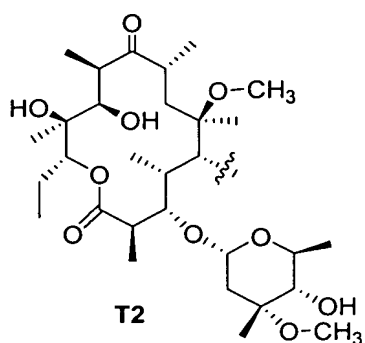
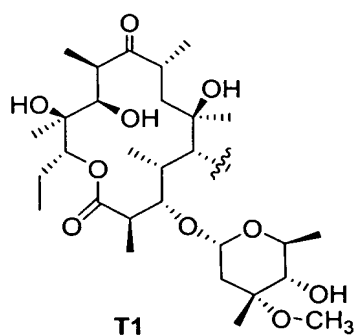


or an *N*-oxide pharmaceutically acceptable salt, ester, or prodrug thereof,  
 wherein M, R<sup>1</sup>, R<sup>2</sup>, R<sup>104</sup>, R<sup>114</sup>, R<sup>109</sup> and R<sup>127</sup> are as described in claim 13.

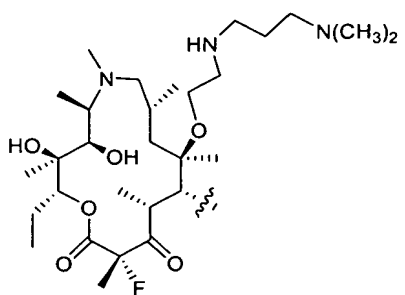


13

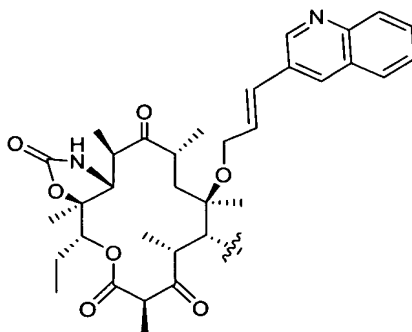
- 1 17. (Currently amended) A compound according to ~~any one of claims 1-16~~ claim 1,  
 2 wherein T is a macrolide selected from the group consisting of T1 through T33:



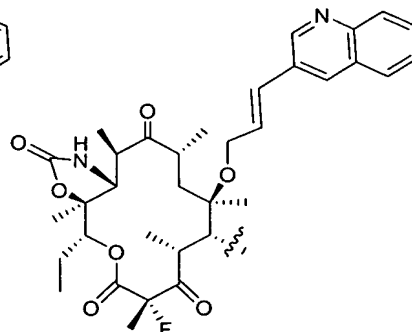
9  
10



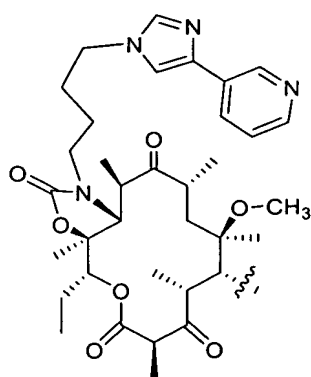
T10



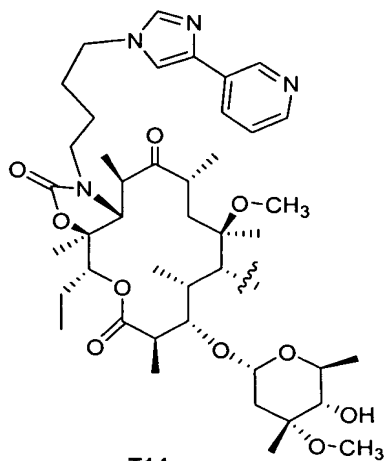
T11



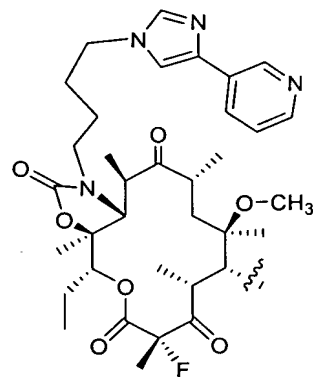
T12



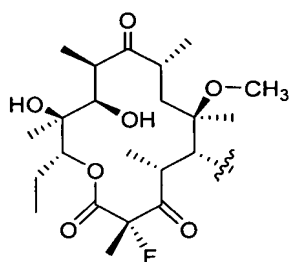
T13



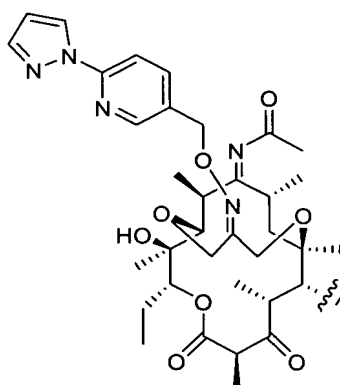
T14



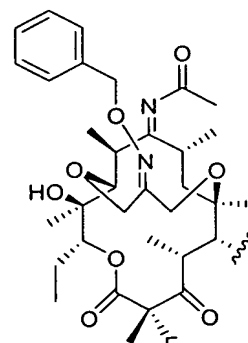
T15



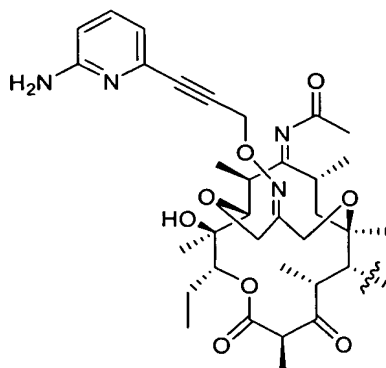
T16



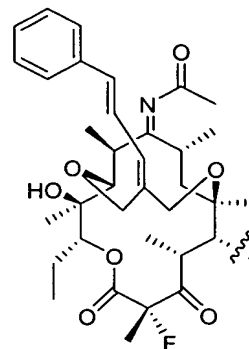
T17



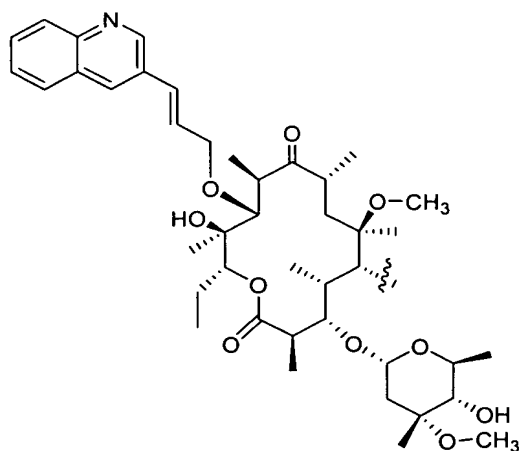
T18



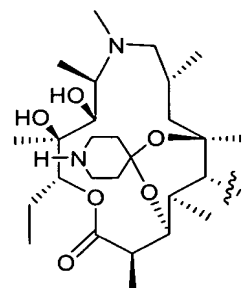
T19



T20

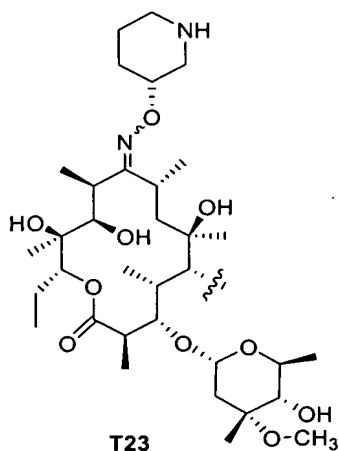


T21

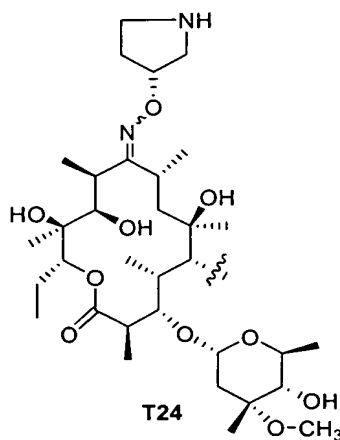


T22

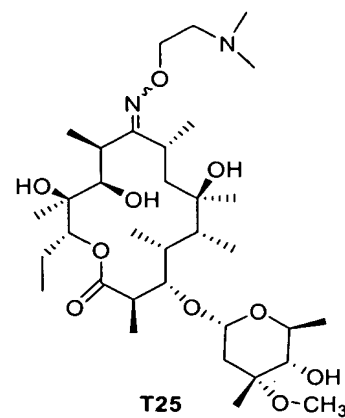
;



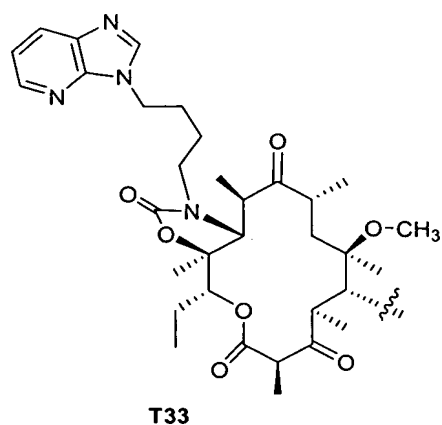
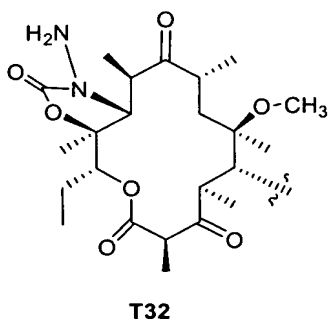
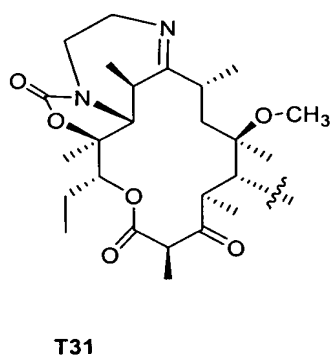
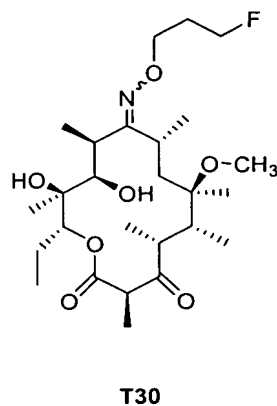
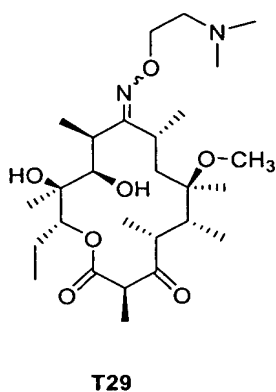
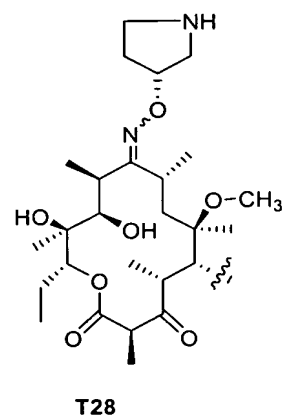
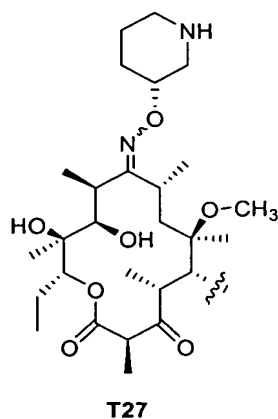
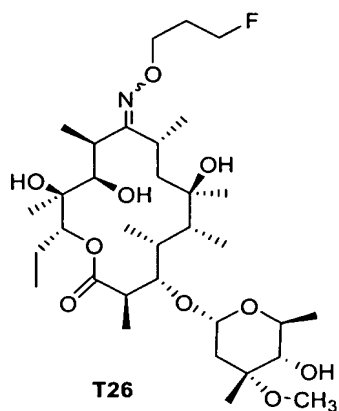
T23



T24



T25



or a pharmaceutically acceptable salt, ester, N-oxide, or prodrug thereof.

1           18.    (Original) A compound having the structure corresponding to any one of the  
2 structures listed in Table 1 or 13, or a pharmaceutically acceptable salt, ester, *N*-oxide, or prodrug  
3 thereof.

1           19.    (Currently amended) A pharmaceutical composition comprising a compound  
2 according to ~~any one of claims 1-18~~claim 1 and a pharmaceutically acceptable carrier.

1           20.    (Currently amended) A method for treating or preventing a disease state in a  
2 mammal comprising administering to a mammal in need thereof an effective amount of a compound  
3 according to ~~any one of claims 1-18~~claim 1.

1           21.    (Currently amended) A method of treating a microbial infection in a mammal  
2 comprising administering to the mammal an effective amount of a compound according to ~~any one~~  
3 ~~of claims 1-18~~claim 1.

1           22.    (Currently amended) A method of treating a fungal infection in a mammal  
2 comprising administering to the mammal an effective amount of a compound according to ~~any one~~  
3 ~~of claims 1-18~~claim 1.

1           23.    (Currently amended) A method of treating a parasitic disease in a mammal  
2 comprising administering to the mammal an effective amount of a compound according to ~~any one~~  
3 ~~of claims 1-18~~claim 1.

1           24.    (Currently amended) A method of treating a proliferative disease in a mammal  
2 comprising administering to the mammal an effective amount of a compound according to ~~any one~~  
3 ~~of claims 1-18~~claim 1.

1           Misnumbered Claim 24. (Canceled)

1           Claims 25 - 31 (Canceled)

2

1           32.     (New) A method of treating a viral infection in a mammal comprising administering  
2 to the mammal an effective amount of a compound according to claim 1.

3

1           33.     (New) A method of treating an inflammatory disease in a mammal comprising  
2 administering to the mammal an effective amount of a compound according to claim 1.

3

1           34.     (New) A method of treating a gastrointestinal motility disorder in a mammal  
2 comprising administering to the mammal an effective amount of a compound according to claim 1.

3

1           35.     (New) A method of treating or preventing a disease state in a mammal caused or  
2 mediated by a nonsense or missense mutation comprising administering to a mammal in need  
3 thereof an effective amount of a compound according to claim 1 to suppress expression of the  
4 nonsense or missense mutation.

5

1           36.     (New) The method according to claim 20 wherein the compound is administered  
2 orally, parentally, or topically.

3

1           37.     (New) A method of synthesizing a compound according to claim 1.

2

1           38.     (New) A medical device containing a compound according to claim 1.

2

1           39.     (New) The medical device according to claim 38, wherein the device is a stent.